

A
TEACHER
TRAINING
MANUAL

J. DUNHAM



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A TEACHER TRAINING MANUAL

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to
The Ministry of Education
Iran*



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WARWICK SQUARE, LONDON, E.C.4

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by C. Tinling & Co., Ltd, Liverpool, London and Prescott.

"I will tell you what I think we expect of teachers to-day, and contrast it with what we used to expect of teachers, namely, that they should be instructors. I think the teacher to-day is required to be something of a blend between a gardener and an incendiarist.

In the old days the teacher was mainly a source of information. To-day I think the situation is changed; certainly it is in my own country. The radio, television, popular illustrated* magazines, all provide abundant information. What is necessary for most young people, adolescents anyway, is not always further information which is thrown at them by all sorts of sources, including propaganda and advertisements, but an intense desire to analyse some of the things which they see going on around them. That is why I said that a teacher to-day needs to be an incendiarist. I think his job—when he is dealing with children over eleven and often below that age too—his job is to set the child's mind on fire; just that I would say, almost nothing but that, because if the mind is set on fire there is enough combustible material around any child in a western country for him to have plenty to burn. So if you can accept that point of view, that one of the tasks of every teacher is this setting the mind alight, then the other task is the training, or what we used to call the training of character. The teacher in the primary school to-day is not concerned just with teaching "the three Rs", reading, writing and 'rithmetic, nor with adding music and art, nor with all the other subjects of the curriculum. The teacher to-day in the primary school in every country, in the opinion of advanced educational thinkers, is a person who is guiding the development of a human life. As I tried to find a word for it I concluded I could not accept that word "training". We are not training people's character; that is not the modern concept at all. The only analogy I

could think of at all was this gardening analogy, that we are there, the teacher in a primary school is there, the teacher in a secondary school is there, to modify the environment so as to provide the optimum conditions for growth; so the teacher must know the environment of the child. The primary school teacher, if he is any good at all, will know the individual home of every child. He must understand the background from which that child comes, the strings that are pulling the child who is a puppet at the mercy of these strings, sometimes hereditary, sometimes environmental. But the teacher has got to understand these conditions and it is for that reason that I ventured to put this analogy of the teacher being an incendiary and a gardener."

From a speech by

Professor C. H. Dobinson,

Director of the Institute of Education,
University of Reading.

Preface

At a conference of teacher training specialists from many parts of the world recently held in the United Kingdom the opinion was expressed by the visiting delegates that, although the many-sided aspects of teacher training were covered by a variety of books, there existed no comprehensive but simple teacher training textbook which met the needs of students with a limited educational background. It was also agreed that, whereas the British student could seek his information in libraries rich in resources, the overseas student very often lacked such facilities and that, because of economy, the range of texts available did not cover the reading material necessary to give the student an adequate knowledge of child growth and development, the aims and objectives of education, curriculum development and the theory and practice of teaching. In short a teacher training *vade mecum* seemed necessary which would embrace a basic knowledge of the basic principles and practice of education.

This guide to teaching attempts to fulfil the need mentioned in the foregoing paragraph. It contains the essential minimum for teachers who, because of the drive against illiteracy in their emergent countries, are being trained by the thousand on the basis of little more than an indifferent secondary education. If one reflects for a moment on the difficulty which a British boy or girl at the age of fourteen would face, if confronted with Burt or McDougall, one can appreciate the folly of attempting studies in psychology with the intellectually immature students of the emergent country.

A decade as a teacher training specialist in Far Eastern and Middle Eastern countries has enabled the author to make

an appreciation of the peculiar difficulties of teacher training students overseas. He has arrived at the conclusion that the professional courses in psychology and the philosophy of education offered in the majority of training colleges or normal schools in emergent countries confuse rather than enlighten the students. Indeed these students frequently come to college with a naturally endowed and empirically acquired knowledge of the children of the neighbourhood which far exceeds that of the educational theorist who seeks to edify them on the characteristics of these children. Without the intellectual equipment necessary to understand the psychological analysis presented to them, the useful everyday understanding which these students possess of the children they are to teach is confounded by a mass of educationalese faithfully and dutifully memorised but imperfectly understood.

The author has accordingly drawn up certain indispensable but attainable objectives which will enable the student of limited education to understand how a simple analysis of the knowledge he already has of children can be of service to him in the classroom and enable him to adapt and adjust subject matter to meet the needs of the children and secure a desired educational development.

The author has designed this teacher training guide to achieve the following objectives:

- (i) That the teacher must understand the aims and objectives of education.
- (ii) That the teacher must understand how a school curriculum can be devised to fulfil these aims and objectives.
- (iii) That the teacher must understand the basic principles of child growth and development and the processes by which a child learns.

- (iv) That on the basis of an understanding of the child the teacher must learn how to plan and present subject matter in a manner which will arouse the interest, sense of purpose and thought processes of the pupils.
- (v) That the teacher must possess an adequate knowledge of the five main subject areas of the curriculum, Language Arts, Social Studies, Mathematics, General Science, Physical and Health Education, and that he must develop methods of presenting this knowledge which will evoke the lively co-operation and thoughtful understanding of the pupils.
- (vi) That the teacher must strenuously promote the development of the school as a community rich in opportunities to develop worthwhile recreational activities and a sense of responsibility amongst the pupils.

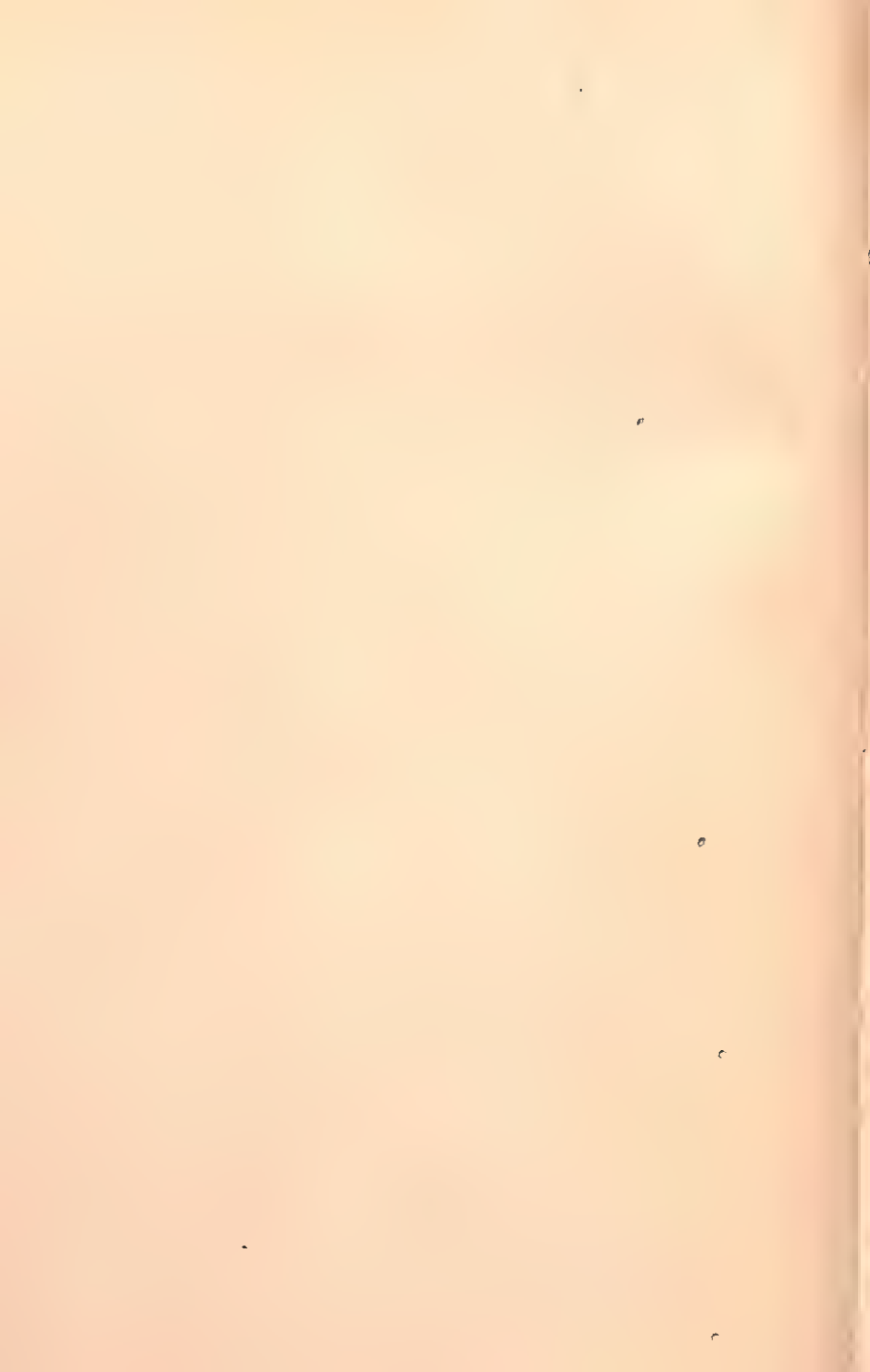
The author would like to express his indebtedness to Filipino, Malayan and Iranian educators in whose countries he has worked and with whom he has discussed with so much profit many of the suggestions offered in this Guide to Teaching.

The author would like to emphasize that he is fully aware that the techniques and approach required for teaching the aesthetic work of the school such as Art, Crafts and Music receive scant attention. Although the importance of these aesthetic activities is stressed, the author feels that, notwithstanding their contribution to the full development of the pupil, they do form part of a specialist area and should, in consequence, be considered by specialists in another manual. A second factor which determined the omission of detailed reference to the teaching of aesthetic activities, is the author's desire to restrict this manual to handbook proportions and to prevent it from becoming a library tome.



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Illustrations

facing pages 88-89

Students at the Amedzofe Teacher Training College in Ghana in the classroom of a Primary School taking notes on practical teaching methods

Malayan Students building an open-air theatre

Students studying banana plants at the Yundum Teacher Training College in Gambia

An Art Class in progress at a Teacher Training College in Ghana

At the Kent Teacher Training College in North Borneo students are encouraged to play their native musical instruments as part of their training

Football Practice at the Kent Teacher Training College in North Borneo

Students using the library at the Malayan Teacher Training College at Wolverhampton, England

A Malayan Student Teacher directing group work in an English Primary School

Acknowledgments

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The Aim of Education

“To make your children capable of honesty
is the beginning of Education.”

THE idea persists in the minds of a large proportion of the teachers of the world that the aim of education in their schools is to cause the pupil to acquire a certain store of knowledge which is identified with “education”. As a result of this conception of education they prepare for the teaching profession by equipping themselves with a certain amount of knowledge together with methods of transmitting this knowledge to the pupil. Let us not be too disparaging about this old-fashioned notion. Knowledge is still important and in the process of attaining knowledge the pupil gains such advantages as a retentive memory, a reasonable attitude to hard work and discipline and, of course, the elementary skills such as reading, writing and numbering, which he must be taught in order to gain this knowledge.

Dynamic Society

Although both this knowledge factor and the necessity of developing the elementary tools of learning must not be disregarded, they cannot be regarded in themselves as a satisfactory aim because in the world to-day our pupils face the problem of an ever changing society with shifts in emphasis as to what knowledge is vital to their new generation. In short, we cannot be certain that the knowledge we

give the pupil to-day will be adequate for to-morrow. We cannot be certain that the citizenship for which we prepare him to-day will fit him to be a citizen in the world of to-morrow—he may, for all we know, be colonizing Mars or the Moon.

The dynamic nature of life indicates fairly definitely the first direction education must take. Our pupils must be developed as adjustable individuals who can accommodate themselves to the changing circumstances of life.

Samuel Butler in his work *The Way of all Flesh* stated "Living in fact, is nothing else than this process of accommodation".

The achievement of this power of accommodation postulates the ability of discernment and so perhaps our first aim in education must be to develop the child as a clear thinking individual who is capable of calmly appraising any situation in which he finds himself. In consequence the pupil at school must be made to think for himself and the subjects he studies must be presented to him in a manner which stimulates his thought processes. "Never tell the pupils anything which they can find out themselves" is a satisfactory teaching adage.

The Development of the Individual

Our second aim, having secured our pupil as a clear thinking and adjustable being, concerns his development as an individual. Every child possesses potential ability and talents, every child has an urge towards creativeness, independence and self-assertiveness and every child has sources of energy which can power these abilities, and these urges towards creativeness, independence and self-assertiveness. Therefore our second aim in education must surely be to offer scope for the fruitful development of the child's potentiality, enabling him, for example, to become a great mathematician, historian, writer, artist, craftsman,

gardener or engineer. The talents of the child must be developed to their full potential so that he may achieve personal satisfaction and pursue happiness.

The Individual and the Community

But we must remember that although the individuality of the child should realize its potential development, yet the child lives in a community and, if his individualism were unschooled, he might well prove egocentric and unacceptable to the community. Education must therefore not only enrich and develop the individual but it must also adjust the developed individual to society. Education's third aim must lead the individual to accept willingly certain prohibitions which may seem initially to confine his upsurge of the independence. To secure this end the school, avoiding mere indoctrination, must create correct values and attitudes in the minds of the pupils towards reasonable social behaviour. In a colloquialism they must give as well as take, and be prepared to accept some frustration in their personal inclinations so that the general good may be served. Freedom must not become license. Edmund Burke observed on this point: "I am free, but not dangerously free to my fellow men".

Service to the Community

Closely associated with the aim stated in the previous paragraph is our fourth aim. The individual must not only be happily adjusted to society but he must also serve, enrich and preserve his society. He must have a constructive attitude to civic responsibility.

Professor W. D. Wall states in his book *Education and Mental Health*: "The school is society's instrument for moulding the young, transmitting the cultural heritage for inculcating values, ideals and modes of behaviour on which both the continuity and evolution of humanity depend."

The school must promote the idea that not only does the individual belong to society but that society belongs to him and that accordingly it is incumbent on him to make his contribution to the economic and social good of the community by following some useful employment, by living as a social being and by upholding the constitution and the accepted rules of behaviour in his society. Briefly a sense of duty to society must be instilled in the pupil so that he will be prepared to "do the little bit extra" for the community over and above what he is paid to do.

In sum an educated person should be:

- (i) A clear thinking individual who can accommodate himself to a changing world.
- (ii) An individual whose full potential has been developed so as to ensure a personal sense of fulfilment and happiness.
- (iii) An individual who is adjusted to society and who is not a "misfit".
- (iv) An individual who, as a useful person in the community possesses a constructive attitude to civic responsibility.

Let me end this chapter with these words:

"I call therefore a complete and generous education that which fits a man to perform justly, skilfully and magnanimously all the offices both private and public of peace."

John Milton.

The Objectives of Education in our Schools

THE general aims we have discussed should now be considered in relationship to a curriculum in our schools. It is suggested that the following specific objectives should be reached in our schools.

- (i) The development of the spiritual, moral, mental and physical well-being of our pupils.
- (ii) The development of skills in the tools by which our pupils can acquire knowledge and understanding, namely the skills of Reading, Writing, Speaking and Numbering.
- (iii) The development of the power of clear thinking.
- (iv) The development of the ability of the pupils to understand and adjust themselves to people and life in their community.
- (v) The development of a constructive attitude of responsibility to family, town, nation and world.
- (vi) The development of an appreciation of the cultural heritage of the nation plus a determination to maintain and improve it.
- (vii) To prepare our pupils to earn a living.
- (viii) The development of interest in cultural pursuits which will enable pupils to enjoy their leisure.

- (ix) To develop the aesthetic sense of the pupils and encourage creative expression.

Having established our specific aims in the schools it is now necessary to inquire how these may be achieved by a sensibly planned curriculum. From the outset we wish to emphasize that the curriculum should be devised to meet the needs of the educational development of the pupil and not to exist as an end in itself. We must on no account fit the child to the curriculum, but, because the child is to be developed, the subjects of the curriculum must be planned so as to ensure this human development. Thus, as we shall see later, education must be *Child-Centred* and not *Subject-Centred*. Further, if we remember that the child is to be educated as an adjustable individual in a changing society we must, under no consideration, have an inflexible attitude to the curriculum of our schools. A curriculum must be constantly evaluated in the light of changing circumstances and, therefore, must not be rigid. We must prepare our pupil to live happily and usefully in the world as it is to-day or may be to-morrow, not as it was yesterday. Moreover, in view of what we have stated in our last sentence, it is vital that our curriculum is related to the everyday life of the child. To offer an example, the arithmetic he studies should be related to his personal expenditure, shopping for mother, the family budget, the area of his playground, banks, post offices and building construction. History should concern itself with the story of the development of the government of his country, the story of the development of his town, or of transport, health or the everyday things he uses and not be concerned with battles and the dates of the reigns of kings.

Another point must be made before we discuss in detail the curriculum of our schools. Several of the aims and objectives we have listed are, as you will realize, indivisible. We cannot compartmentalize a human being's development.

THE OBJECTIVES OF EDUCATION

The moral, spiritual, physical and mental are part of a unity. Good health and good behaviour go together. The development of aesthetic values is to a considerable extent governed by clear thinking. A pupil can make little progress with social studies unless he can read and write and a pupil will not advance far in physics or chemistry if he is unable to add, subtract, divide and multiply. Because we hold mathematics to be an ideal medium for training the pupil to think clearly, we do not deny that mathematics can make a contribution to a pupil's ability to live socially and earn his living. Accordingly a school curriculum must be integrated as far as possible and certainly teachers must be ever watchful of opportunities to relate what they are teaching to other subject areas. The curriculum must not be considered in terms of isolated subject areas through which a child is processed in order to achieve a certain aim of education. It must be visualized as a whole, possessing unity so as to lead to a whole development of the pupil.

Thus, although we shall suggest that certain subject areas are suitable media for securing certain of the objectives of education we have listed, it must not be thought that these subject areas cannot cater for other objectives of education.

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SUBJECT AREA OR ACTIVITY	Language Arts	Mathematics	Social Studies and Civics
	<p>i Moral and spiritual development</p> <p>ii Development of skills and tools of education</p> <p>iii Development of clear thinking</p> <p>iv Development of adjustment to the community</p> <p>v Development of Civic Responsibility</p> <p>vi Development of appreciation of cultural heritage</p> <p>vii Preparation for earning a living</p> <p>viii To develop worthwhile leisure pursuits</p> <p>ix To develop creative expression</p>	<p>ii Development of skills and tools of education</p> <p>iii Development of clear thinking</p> <p>v Development of Civic responsibility</p> <p>vii Preparation for earning a living</p> <p>viii To develop worthwhile leisure pursuits</p>	<p>i Moral and spiritual development</p> <p>ii Development of skills and tools of education</p> <p>iii Development of clear thinking</p> <p>iv Development of adjustment to the community</p> <p>v Development of Civic responsibility</p> <p>vi Development of appreciation of cultural heritage</p> <p>viii To develop worthwhile leisure pursuits</p>

THE OBJECTIVES OF EDUCATION

General Science and Health Education	Physical Education and Health Education	Cultural and Creative Activities (Art, Handicraft, Music, Drama)	Community and Social Activities (Games, clubs and societies)
i Moral and physical development	i Moral and physical development	i Moral and physical development	i Moral and physical development
ii Development of skills and tools of education			
iii Development of clear thinking	iii Development of clear thinking	iii Development of clear thinking	iii Development of clear thinking
iv Development of adjustment to the community	iv Development of adjustment to the community	iv Development of adjustment to the community	iv Development of adjustment to the community
v Development of Civic responsibility	v Development of Civic responsibility		v Development of Civic responsibility
	vi Development of appreciation of cultural heritage	vi Development of appreciation of cultural heritage	vi Development of appreciation of cultural heritage
vii Preparation for earning a living		vii Preparation for earning a living	
viii To develop worthwhile leisure pursuits	viii To develop worthwhile leisure pursuits	viii To develop worthwhile leisure pursuits	viii To develop worthwhile leisure pursuits
	ix To develop creative expression	ix To develop creative expression	ix To develop creative expression

Note: Community and Social Activities will be largely extra-curricular activities.

The Curriculum

WE have reached the stage when we should seek to organize school curriculum in terms of the general and specific aims of education we have set forth. Briefly, how can these objectives be secured for our pupils in the schools of the country?

Bearing in mind that none of these aims can be achieved in a single subject area we do, however, find that certain broad areas of study offer opportunities to gain certain of our objectives. These main areas of study or activity, which, as we shall see later when we consider methods of teaching, may be integrated, are as follows:

Language Arts

Mathematics

Social Studies

General Science and Health Education

Physical Education and Health Education

Cultural and Creative Activities, Music, Art, Handicraft, Folk Dancing

Community and Social Activities

Although we refer to these groups as subject areas, it is important that we do not develop a "subject fixation". The curriculum, especially at the primary level, should be considered in terms of experiences and activities for the pupil rather than in terms of a regimen of academic subjects.

Religious Instruction

Fundamental to a child's upbringing both in the family and in the school is the development of his religious faith. The spiritual values and attitudes he acquires by instruction in the tenets of his faith will guide and sustain his moral worth and behaviour. Opinion differs both as to the exact place of this religious instruction and as to who should act as the preceptor. My personal belief is that it should precede, first thing in the morning, all other instruction in the school curriculum. But wherever its place or whoever gives the instruction it cannot be ignored.

The Timetable

Logically we should now proceed to schedule the areas of studies we deem vital for our curriculum into a planned, daily programme. We are hesitant to do this because children differ, teachers differ, climates differ, customs differ and nations differ. And so, instead of attempting to issue a master plan let us present three examples of school timetables at the primary level.

Before offering these examples, here are five guiding principles in formulating a timetable.

- (i) The scope of the syllabus must be systematically and economically covered.
- (ii) The timetable must be devised to maintain the interest and attention of the pupils in the subject or activity.
- (iii) The timetable must be devised so as to prevent fatigue and boredom both on the part of the pupils and teachers.
- (iv) The timetable must be devised so as to offer flexibility.
- (v) The timetable must be devised to use the capabilities of the teaching staff to the utmost advantage.

Primary School Curriculum

CINCINNATI PRIMARY SCHOOLS

Sample Timetable

GRADE ONE

9.00- 9.30	Health Inspection, class routines, planning
9.30-10.15	Reading Groups and related activities
10.15-10.35	Physical Education
10.35-11.00	Reading Groups and related activities
11.00-11.15	Music
11.15-11.35	Science, social studies, health or safety, art
11.35-11.45	Dismissal
11.45-12.45	Noon Intermission
12.45-12.50	Rest
12.50- 1.05	Writing
1.05- 2.10	Reading Groups and related activities
2.10- 2.30	Supervised Play
2.30- 2.50	Arithmetic
2.50- 3.25	Language Arts
3.25- 3.30	Dismissal

TYPICAL BRITISH PRIMARY SCHOOL

Sample Timetable

GRADE ONE

8.50- 9.00	School Assembly and Prayers
9.00- 9.15	Health Inspection and Class routines
9.15- 9.45	Arithmetic
9.45-10.15	Reading and Writing
10.15-10.40	Physical Education, Health and Safety
10.40-11.00	Intermission
11.00-11.30	Music
11.30-12.00	Social Studies
12.00- 1.45	Lunch Intermission
1.45- 2.15	Language Activity—Plays, Stories

2.15- 2.45	Science (Nature Study)
2.45- 3.00	Intermission
3.00- 3.30	Art and Handicraft
3.30- 3.40	Dismissal

Filipino Daily Timetable for Primary Schools

GRADE ONE

Morning

7.30- 8.00	School Beautification
8.00- 9.00	Socializing Experiences
9.00- 9.20	Writing
9.20- 9.40	Recess
9.40-10.10	Reading and Verbal Expression
10.10-10.30	Arithmetic
10.30-10.50	Handicraft

Afternoon

2.00- 2.20	Music (on three afternoons)
	Art (on three afternoons)
2.20- 2.50	Language and Spelling Skills
2.50- 3.10	Physical Education
3.10- 4.10	Socializing Experiences and Community Service

Note 1. Socializing Experience include:

- Our Personal Hygiene
- Our Health
- Our Family
- Our Home
- Our School
- Our Clothes
- Our Pets and Animals
- Our Village

Note 2. Community Service concerns how the pupils can be developed as useful and adjusted citizens.

Secondary School Curriculum

There is an erroneous conception in many parts of the world that a whole new set of objectives should motivate the Secondary School curriculum, which should in consequence differ very much in pattern from that of the Primary School. In fact the aims and objectives of education should remain constant throughout the entire education of the child. In the Secondary School however, we should devote more emphasis to certain of these aims and, perhaps, assume that certain other of these aims need less attention.

For example, guidance in social adjustment becomes of great importance to the adolescent. Also ability to assume responsibility increases in importance as the child approaches the day when he will enter life. The education of an adolescent requires emphasis on creative expression if he or she is to emerge as a person with a balanced personality. Again the physical well-being of the adolescent must be nourished with immense care. Finally, education at the Secondary level must devote increasing attention to the potential of the child as a wage earner. On the other hand it may be assumed that the basic skills of the three "R's" need less attention in the Secondary Schools (although few Secondary School teachers would agree to this notion).

Briefly, the Secondary School curriculum should face the challenge of four main factors.

- (i) The adjustment of the adolescent to society as a happy and balanced individual.
- (ii) The capacity of the child to earn a living.
- (iii) The development of a sense of social responsibility.
- (iv) The physical development of the child.

A glance at the above four factors will cause us to realize that the main subject areas, listed in our Chart, all must have their place in the Secondary School curriculum, i.e.

Language Arts
 Mathematics
 Social Studies
 General Science and Health
 Physical Education
 Cultural and Creative Activities
 Community and Social Activities

The value and weight we should attach to such subject areas in terms of time allocation must depend upon individual differences of the pupils. Ideally, I suppose every child should have a personal curriculum suited to his needs, intelligence and aspirations. Now this of course is impossible and some method of classification must be devised but, and this is of vital importance, there should be flexibility in these classifications so as to permit pupils to be transferred from an area of specialization in which they may be failing to make progress, to another in which they may succeed. The classification of pupils into specialist areas in our secondary schools is the subject of interminable discussion. It is dangerous to be dogmatic on this subject but I am firmly convinced that no specialization should occur before the termination of the ninth grade. Until the ninth grade the core subject areas must be studied by every child if he or she is to have the basic general education which befits all future citizens. Even after the ninth grade some elements of each of these core subjects should be retained in every child's education.

After the ninth grade, according to his abilities and proclivities a pupil may perhaps be allowed a certain degree of specialization in broad groupings of the subject areas, i.e.:

Language Arts
 Social Studies
 Mathematics
 Practical Arts and Crafts
 General Science

There are many factors governing the streaming of the pupils into such specialist groupings. Amongst these factors are:

- (i) Quality and quantity of teaching staff.
- (ii) Ability of pupils in specialist subjects.
- (iii) Inclination of pupils (with special reference to their future careers).
- (iv) Wishes of the parents.
- (v) Locality and environment.

Different groupings are possible. For example Mathematics may be a separate group. Science may be a separate group. On the other hand Mathematics and Science may well be considered a single group. Language Arts and Social Studies may also be considered as a single area of study.

Whatever form these specialist groupings may assume it is vital that such core subjects as Language Arts, Social Studies, Physical and Health Education and Practical Arts are studied throughout the Secondary School by all pupils. Education in our schools concerns the development of the whole of the child not a part of the child.

Suggested programme in Secondary Schools:

Up to end of Ninth Grade

Language Arts

Mathematics

Social Studies

General Science and Health Education

Physical Education

Cultural and Creative Activities

Practical Arts

Up to end of Twelfth Grade

Language Arts

Social Studies

Physical Education

Practical Arts

Specialist Area of Studies

Note on Practical Arts

Practical Arts include a wide scope of activities, e.g.

Music

Art

Handicraft

Domestic Science

Commercial Studies

Vocational Subjects related to Environment of School

e.g. Animal Husbandry, Horticulture, Metalwork,
Carpentry

It is considered essential to offer practical arts as a possibility for a specialist area of study. There is a world wide impression that secondary education implies the pursuit of academic studies and that its end result is a black-coated occupation. This impression must be eradicated. A farmer has the same right to and the same need for a secondary education as a lawyer. An engineer has the same right to and same need for a secondary education as a doctor. Thus if we are to initiate preparation for wage earning in our schools it is shortsighted to deny that preliminary preparation to those pupils who will need it. It is a grave disservice to an emergent nation to direct all our able pupils towards the professions and civil service which are, economically, non-productive. The best brains of our country are needed in industry, engineering, agriculture, building construction, commerce and business. The Secondary School must ensure that it provides courses which will encourage our brightest children in the direction of these occupations. Nor must a narrow view be taken of these practical courses. They must be considered more from an educational standpoint than from a vocational stand-

point. A course in Animal Husbandry or Horticulture must include such subjects as Biology, Botany, a study of simple Economics, the Chemistry of soil and the effect of Climate. A course of Handicrafts, Carpentry and Metalwork must include Mathematics, Drawing, simple Economics and Chemistry.

A course in Commercial Studies should not merely train the pupils to type well and take down shorthand at speed. It should involve Mathematics, Economics, Bookkeeping, Economic Geography, a Language study both of the national language and a foreign language.

It will be seen that these practical courses give opportunities to integrate studies in such a way that the pupils will see purpose in their studies and realize the relationship of these studies to real life situations.

Curriculum Steering Committee

The Ministry of Education has a duty to issue regulations concerning the composition of the curriculum. Unity is vital and it is imperative that certain minimum standards prevail throughout the country. The Ministry should, however, allow some latitude in designing the curriculum to the provinces and municipalities in order that the studies of the pupils may be related to the social and economic characteristics of the environment. The core subjects of the curriculum must be obligatory but it is suggested that in the selection of the specialist areas of study there should be a permissive element which would enable the schools to offer courses of studies which would be intimately associated with the life and occupations of the community.

To this end Curriculum Steering Committees should be established in the local districts to adjust the curriculum to the needs and character of the community. Mature Principals and Supervisors should hold regular meetings under the chairmanship of the Chief Education Officer to consider

local variations in the curriculum. The suggestions agreed upon should then be submitted to the Ministry of Education for approval. By such steps both local and national needs may be safeguarded.

There is a psychological factor underlying the principle of local variation in the curriculum in that Principals and Teachers will work more enthusiastically at a programme they have devised themselves, and in which they believe, rather than one which is bureaucratically imposed upon them.

Education for Community Living through Extra Curricular Activity

“Granting that we concede to the citizen (1) the right to employment, (2) the rights of social security, what is then the correlative duty of the citizen? The answer surely is ‘To be responsible’.”—Sir Fred Charke.

Two of the aims of education which we considered in the first chapter, namely that of developing our pupils as happy and adjustable members of a changing society and that of ensuring their willingness to assume responsibility for and to improve this society, are better practised than preached about. If the school is organized as a miniature community there should be no difficulty in offering the pupils opportunities to enjoy the privileges and assume the responsibilities of citizenship in the small, well-knit school community. Let us not talk too much about civics, neighbourliness and responsibility in our schools but rather let us provide our pupils with opportunities within the school community to live and act civically, to live as friendly neighbours and to develop a sense of responsibility through accepting responsibility. Let us examine in some detail how, through extra curricula activities habits of civic behaviour, neighbourliness can be so inculcated as to prepare the pupil to live an adjustable, happy and useful life in the community.

Fundamental to the process which can develop community living such as games, cultural societies, dramatics, concerts and socials, is the spirit or tone of the school. The pupils must take pride in their school. Such a pride can only be obtained by real achievements and a reputation for good behaviour. The school must "stand for something". Its games clubs must acquire a name for sportsmanship and fair play. Its debating society, its dramatic club and its choir must acquit themselves with distinction. The pupils must become known for their good manners and hospitality, smart, clean appearance and upright bearing. The poet Virgil said of one of the crews in a boat race he described,

"They are able because they seem to be able".

This "tone" or school spirit should underly every activity or pastime undertaken by the pupils of the school. Pupils should seek to excel not for their personal glory but for the honour of the school. They should play for the team with their comrades and not to exhibit their own speed or physical prowess. This school spirit may perhaps find an outward manifestation in a school blazer or tie or some other emblem unique to the school, the implication being that the pupils will never disgrace this emblem or cause it to fall into disrepute.

The School Assembly

It is important, if this *esprit de corps* is to be fostered, that the pupils experience "togetherness" and a sense that they do belong to a unique community. To this end it is vital that, if possible, the whole school population assembles frequently to participate in some worthwhile activity.

In many countries of the world all the pupils and teaching staff assemble in the School Hall to pray together and to listen to a religious or ethical reading. A practical benefit also derives from such a gathering in that important notices relating to the activities of the school may be announced.

Such an assembly starts the school day well and serves to impress upon the pupils a sense of corporate life. It is moreover a formal occasion when the schoolboy's sense of dignity and duty may be developed. It must also be emphasized that the organization and conduct of this morning ceremony should be very largely in the hands of the pupils. It is their assembly not merely the Principal's assembly.

Clubs and Societies and Community Service

The development of the school as a community depends upon offering the pupils constant experience in communal activities. It is "the doing of things together" which is most likely to promote a sense of community.

So vast is the scope of recreational activities possible within the school community that they can only be mentioned in broad terms. It is suggested that these recreational activities fall into three main groups, although all are closely related. The groups are:

- Cultural Activities
- Games and Athletics
- Social Functions

Cultural Activities

Cultural Activities embrace all manner of pursuits. Under are listed just a few of the possibilities.

- Debating Society
- Dramatic Society
- School Choir
- Folk Dancing Society
- Art and Handicraft Society
- Travel and Explorers Club
- Hobbies Club
- Gardening Club

Games and Athletics

One need not discuss in detail games and athletics in the school but perhaps a word or two of caution might be uttered. In the first place it is folly to attempt too much so that interest is diffused and no game is played with any success. It is quite sufficient for a school to concentrate on two games which should, if possible, be indigenous games and not foreign importations. In the second place care should be taken to play *team* games rather than games in which individual prowess is accentuated. Thirdly, although it is in accordance with our desire to promote pride in the school community, success in games should never be at the expense of good sportsmanship.

Social Functions

If the social side of the school community is ignored a great opportunity is thrown aside. For in parties, concerts and social gatherings there are unique opportunities of developing social graces, deportment, good manners and consideration for others. Moreover quite apart from the educational results derived from social life let us remember that the child is entitled to happiness. Education should not be regarded as a spartan regimen to which the pupil is subjected for a number of joyless years. The good school community should therefore offer wholesome and enjoyable recreation for its members.

Community Service

The school community is surely the appropriate medium for inculcating neighbourliness and a spirit of service to others. Again it is better caught than taught. The sound school community should prosecute a yearly project of service to the community outside the school. There are endless opportunities to help others in any community. Up and down the world I have seen many remarkable

community services carried out by the schools. In one province in the Philippines each school undertakes the "beautification" of its neighbourhood with the result that the streets are bordered with banks of beautiful flowers or blossoming trees. In many villages of the Philippines the scavenging is undertaken by the pupils before they come to school. I have come across villages where the roads and community halls have been constructed by the pupils of the school. In Scotland one celebrated school provides an efficient Fire Fighting Brigade for the district. In Penang, Malaya, the schools by holding fun fairs have raised enough money to support Youth Clubs in the city. In Malaya a college undertook the task of excavating and building a vast open air theatre for the use of the people of the town. In some parts of India the pupils have built their own schools and made their own desks, stools and equipment.

The material benefits of such self-help projects are of course of great importance, but they are greatly outweighed by the inculcation of correct attitudes towards civic responsibility, by the development of generosity and neighbourliness and, by the realization on the part of the pupil participant that happiness may come from helping others, just as much as from helping oneself. A valuable concomitant of the moral benefits springing from such projects lies in the blow which is struck at "collar and tie" snobbery.

There are two general observations which should be made on the subject of Clubs and Societies and Community Service in the school. Firstly it is important that the members of the staff participate as much as possible, especially in the cultural and social activities. The school community results from a partnership between staff and pupils. And of course young people need mature guidance in the conduct of these affairs. Secondly, granted that the co-operation of the staff is needed, yet to the greatest possible extent the organization and conduct of clubs, games and social life should be in

the hands of the pupils themselves. It is a wise procedure for the principal to appoint a staff adviser for all school activities but this adviser should remain in an advisory capacity and should not become executive. The organization of clubs and societies are rich in opportunities for the development of responsibility and leadership. The role of the principal and staff is to ensure that as many pupils as possible share in these responsibilities. Secretaryship, captaincies, treasuryships, committee memberships should be widely spread amongst the pupils. Responsibility cannot be taught it must be developed by means of practical experience. A similar principle may be applied to the question of leadership. Leadership is not a commodity which can be obtained by taking a course of ten lessons. It emerges from situations and experiences where leadership is demanded of an individual. Self reliance is the fruit of habits acquired in circumstances which call for individual initiative. A dynamic programme of extra curricular activities can provide the pupils with such situations circumstances and opportunities.

A school which disregards a carefully considered scheme of cultural, sporting and social activities and community service is failing in its prime function, since it is only through such activities that the essential preparation for citizenship can be achieved. The extra-curricular life of the school forms a point of impact towards which the outstanding influence in the child's life, the family, the school and the community converge, and the education of a child will prosper if there is unity in this trinity.

Essential Attributes of a Teacher

IN considering the attributes essential to a teacher one immediately becomes aware that they resemble very closely those qualities which one would like to see in all mortals. Yet because the characteristics and behaviour of teachers do tend to become the cynosure of all eyes in the community it is important that certain of these desirable attributes should be more pronounced—and possibly more evident—in the teacher's make-up. To illustrate this fact specifically, patience is a laudable quality in all humans but a teacher, because he is responsible for the development of hundreds of either exasperatingly active or distressingly inactive youngsters, must obviously possess an exceptionally large reserve of patience.

It would be well, perhaps, before attempting to indicate the attributes essential to a teacher, to discuss the teacher's attitude to those two vital factors with which he will be principally concerned in his profession, firstly, knowledge and secondly, the child. To simplify our considerations on the teacher's attitude to these two factors I would like to examine them under two headings: Knowledge and Love.

Knowledge

I would like to suggest that a teacher must have knowledge of a twofold nature. He must first possess a wide general knowledge and, within the confines of this general

knowledge, a sound understanding of the subjects he will be called upon to teach in the classroom. Secondly, but equally important, he must have a profound knowledge of children. Let us consider the first of these.

The teacher must remember that he faces young people who are avid for knowledge of all descriptions. One of the most urgent instincts in a child is that of curiosity, and this particular instinct prompts him to incessant questioning. His interests range widely and, to cater for the width of his inquiries, we as teachers must, if we are to retain his respect, have a wide general knowledge which must be kept up to date. And, if we cannot possess the knowledge necessary to answer all the child's queries, we must at least know sources where the answer can be found so that we can say "I don't know, but I will find out for you." Or, better, "I don't know but I can tell you where you can find the answer."

In addition to a general (current) knowledge we must not only have a sound understanding of the subjects which we are called upon to teach but also an appreciation of the relationship of these subjects to everyday life. This means that we must pursue our studies in these because inevitably, with the dynamic nature of life to-day, these subjects will change. Knowledge is never static. New mineral discoveries may transform a tribal community into an industrial society in a short span of time and so make nonsense of yesterday's Geography. Historical research is constantly causing re-appraisals of Historical concepts. Science moves forward at a breathless pace. Music and Art are restless in their development. So it is with literary fare for children. Robin Hood in Sherwood Forest may be dull stuff to-day but Space-men on the Moon are wildly exciting. We must keep pace with these changes because the teacher whose knowledge is out of date will receive little respect from his modern pupils.

Secondly, without an understanding of children the most erudite of teachers will fail. Clever people do not necessarily

make good teachers. A teacher who is blind to the needs and individual differences of children can not possibly succeed as a teacher. The good teacher understands his pupils, he knows what moves them to tears and anger, and what thrills them and makes them happy. He understands their moods, he appreciates the problems associated with their mental and physical growth, he knows how to arouse their interest and stimulate their sense of purpose. The good teacher is on the alert to detect reasons for a child's unhappiness or low performance in his classwork and is able to find remedies for these. He knows what children like seeing and doing at the different age levels and he knows how some pupils respond to kind encouragement whereas others need either a sharp spur to urge them to better effort or a curb to correct impetuosity which results in "slap-dash" work.

The art of teaching lies in the ability of the teacher to adjust his subject matter to the needs and interests of his pupils. Hence knowledge of subject and knowledge of pupil form the twin columns which support education in our schools.

Love

In common with our remarks on knowledge, I believe teachers should in respect of their profession have a love of a twofold nature. They should love their pupils and they should love knowledge.

I have met teachers who claim that they are efficient teachers despite their detestation for children. Usually these teachers are embittered and cynical, and merely efficient instructors. They are not educators. If we have not a deep affection for children we should choose another profession. Happily most people love children but it is important that a young man or woman who decides to become a teacher does not merely possess a sentimental

affection for an ideal child. A teacher's love for children must not be a doting liking but must take the form of a determination to help children in their educational development, to assist them to develop their potential talents, to aid them develop their creativeness and to speed them in their pursuit of happiness.

A teacher's love for children must not be such that it is bruised by rudeness or ill-discipline, dismayed by ignorance or rebutted by deceit or cowardice. It must be a staunch, enduring love which will enable a teacher to see a wayward pupil through his troubles.

Secondly a teacher must love knowledge and the pursuit of knowledge. He must remain a student all his life and find happiness in furthering his knowledge of the subjects he teaches. This is important because the more varied and profound his knowledge, the more variety and depth he will be able to introduce into his teaching. Moreover if he loves his subjects he will of necessity be enthusiastic about them, and this enthusiasm will inevitably be transmitted to a large percentage of his pupils. And yet, alas, the classrooms of the world are full of children who are bored with a teacher who is bored with his subject. Again I would counsel any young person who is not genuinely interested in knowledge for its own sake, to leave the teaching profession because, without this zest for knowledge he will be an uninspired teacher living an uninspired life. The teacher must:

Understand his Subjects

Understand his Pupils

Love his Pupils

Love his Subjects

Essential Attributes

Underlying these two "Knows and Likes" there exists a group of qualities which a young man or woman should possess if they are to succeed and be happy as teachers.

Kindness is perhaps the most essential of these qualities. A teacher who can not view the frailties of mankind with sympathy and understanding will lead a deplorable life. As teachers we are constantly concerned with human errors and human weaknesses, and if we are continually stirred to explosive anger by these, it is unlikely that we shall effectively deal with these problems. The child has a need of "belonging" and it is only the kindness and sympathy extended towards him by the teacher which will enable him to achieve this essential confidence of "belonging" and being "cared for".

Moreover the behaviour of children will assuredly try our patience to the full and, if we have not the quality of kindness, the "aisy* ones, the crazy ones and the lazy ones" will cause us to despair.

Kindness must not however deteriorate to indulgence and softness. Children will have little respect for the teacher who "pets" them. On the other hand, they will have much respect for a teacher who is firm and determined to push them ahead in their studies. I am not an advocate of corporal punishment, but I can not refrain from mentioning my mathematics teacher at school, who certainly did not spare the rod, and who was a monster of vituperation. He was however, the most greatly loved master in the school because we knew that, having suffered at his hands, there was an almost 100 per cent certainty of our securing a "Credit" in mathematics at the Cambridge School Certificate Examination. This particular teacher's kindness was not immediately apparent in the classroom, but it was, in fact, a genuine kindness to do his utmost for the benefit of his pupils. The key to kindness is surely this determination to achieve what is best for our pupils who, materialists from a very early age, will respond to teaching which they realize will help them in a highly competitive society.

* Easy

There is perhaps a pitfall we must avoid and that is the tendency on the part of certain teachers to strive too earnestly for popularity with their pupils. Some teachers adopt a policy of "Let's all be boys together". Now, although a teacher should display interest in the games, pastimes and social activities of the children and, indeed, give advice on their conduct and help to organize them, excessive participation by the teacher can easily become annoying interference. The average child has plenty of playmates and certainly does not look upon his teacher as one. Moreover he resents adult intrusion into his make-believe world. I have even encountered teachers who have associated themselves with the grievances pupils may have against school regulations, or even against the principal. Such disloyalty is not only despicable but also foolhardy in that the pupils will inevitably come to despise and distrust such a teacher.

Happily there are not a great many teachers who act so disloyally, but there is always the danger that an over-anxiety to be friendly, sympathetic and helpful can easily lead unwary teachers into unprofessional behaviour.

May I end this note on kindness somewhat colloquially, by advising all teachers to attempt to achieve a relationship of friendship with their pupils but to refrain from over-doing "the big pal act."

Determination is perhaps second in importance in our list of essential attributes. Indecision is the downfall of many teachers. In the classroom situations constantly occur which result in a clash of wills between teacher and pupil (or pupils). In every lesson inevitably there occurs a moment when the interest of the pupils wanes and at this crisis it is only the determination of the teacher to re-stimulate flagging interest which can revive the lesson. Again, persistence is essential in coaxing the less than average pupil to achieve a reasonable performance in his work.

Humour is a most desirable quality in a teacher from two

standpoints. In the first place without a sense of humour a teacher will find his daily tasks almost unbearable. There is so much frustration in the teaching profession that the person who, instead of smiling at the foibles, stupidities and indiscretions of children, can only fulminate against them, will live an exasperating life. Secondly in our teaching we must use the child's sense of fun and his love of the comic, to capture his interest in our lessons. Children, no less than adults, need the relaxation of laughter. A well-timed joke or sally will relieve the tedium of hard, plodding work and send the pupils back to their tasks with renewed energy and enthusiasm. In our descriptions let us sparkle with wit and humour rather than depress with seriousness and heaviness—"Laughter should be the bridge over which we, as teachers, walk into the child's life".

There are many other qualities desirable in the teacher's make-up, but as these are of equal consequence in any other walk of life, it would be unprofitable to examine them in any detail. For instance a teacher must be highly intelligent but so must a doctor, a lawyer, a business executive or any skilled artisan. A teacher must be an enthusiast but so must any man if he is to perform his occupation successfully. It may be claimed that memory is a vital asset in a teacher, but surely a retentive memory is desirable in most callings. Let us close this chapter by emphasizing that all estimable human qualities should be present in the teacher's personality but that he should possess in abundance:

Kindness
Determination
Humour

Child-Teacher Relationship

“How can I learn except from one who is my friend?”—Xenophon.

In the previous chapter we have discussed certain qualities which, beyond all others, we deem essential in a teacher. These attributes should provide us with a guide to the nature of our relationship with our pupils. The attitude we develop towards this relationship will make or mar us as teachers. Opinion as to the character of this relationship varies. There is the attitude of many teachers who asseverate “I’m going to stand no nonsense. I’m going to be the boss. I know what I want to teach them and, by Heavens, I’m going to see that they learn it.” This is the autocratic approach, the disciples of which will no doubt become efficient instructors. But it is unlikely that they will be educators who will achieve the aims we talked about in our first chapter. Such teachers will be concerned mainly with a subject-centred education which ignores the development of the child’s whole personality.

As a complete contrast to the autocratic attitude, is what is perhaps best described as the “Aunt Jemimah” approach, in which the teacher endeavours to assume the role of a benevolent aunt. This type of “posy posy” teacher sees no naughtiness in children and smothers them with affection. There is a cloying tone of exaggerated affection in their voice. In their teaching there is a doting, “everything-in-

the-garden-is-lovely" quality. Unfortunately everything in the garden of this world is not lovely and equally unfortunately, the adopted nieces and nephews of these aunts (of both sexes) are capable, at times, of extreme naughtiness, idleness and an apparent resistance to all efforts to make them learn.

Now both of these attitudes have their good points. Children need direction (and moreover rather like it) but also they need love and affection. Both of these attitudes have their bad points. Children need freedom to develop, a condition which excessive autocracy denies. Children need opportunities to stand on their own feet and assume responsibility, and a coddling aunt may well preclude such opportunities.

Possibly the best teacher-pupil relationship is one which incorporates the good points of the two attitudes discussed, but rejects the bad ones. The secret of the ideal relationship is found in the words of Xenophon who said: "How can I learn except from one who is my friend". Friendship is the key to a successful classroom relationship. The child needs a special friend in whom he can confide and in whom he can find guidance in the problems which perplex him. He needs someone who can "tell him" things without undermining his self-respect, who can share his jokes, his dreams, aspirations, who can (metaphorically) shed a tear with him and who can, when the occasion demands, correct him firmly when he errs in behaviour. In short he needs not another father, mother or aunt but a guide, counsellor and friend—a friend, mark you, not another playmate.

It is important that we as teachers provide the child with ample evidence of our friendliness towards them. In fact we ourselves must take the initiative in making friendly overtures to the child. Some time ago I heard of a new head of the education department of a teachers' Training College who, two months after his appointment, complained: "I

don't understand these students, not one of them ever comes to me for any advice". Although academically a gifted psychologist, he failed to realize that he was making a confession of failure. He expected the students to take the initiative and did not realize that his cold personality intimidated the students. We must give positive signs of our friendship towards our pupils. For example, how do we talk to them? In my experience about eighty per cent of the teachers in the world address their pupils not in their natural, conversational tone but either in a sharp hostile manner or in a "there, there, little boy" style, both of which inevitably destroy any hope of normal and friendly relationships. Even more inimical to a friendly relationship is the know-all attitude the average teacher tends to adopt in the presence of children—an attitude which has regrettably earned us the reputation of being "men amongst boys and boys amongst men". Many teachers also demand from their pupils a servility quite out of character with the normal respect the average child is willing to pay to other adults in the community. These same teachers are then indignant at frequent outbursts of incivility on the part of their pupils who must from time to time rebel against autocracy.

Let us remember that the offer of friendship does not entail the surrender of respect or dignity. With our adult friends we behave naturally. We converse in a quiet or cheerful manner, without any semblance of a jarring, dictatorial tone. We are courteous and well mannered towards them and we do not assume that they are ignorant beings who must be delivered from their ignorance by our wisdom. We share with them our beliefs, thoughts, sorrows and hopes. We neither pour ridicule upon their ideas nor regard their actions with contempt. Because of our pleasant and sympathetic behaviour towards them, our friends trust us, are willing to turn to us in their time of need and above all things, hold us in high esteem. ,

Our relationship towards our pupils should, as far as possible, follow the patterns mentioned in the previous paragraph. Let us be to them a wise counsellor and friend, and not a dictator of knowledge. Four of the greatest teachers the world has known, Christ, Confucius, Mahomed and Buddha, all loved their fellow men and enlightened their disciples by courteous discussion and simple precept. They were not domineering. The success of their teaching rested in directing the thoughts of their followers on to everyday problems related to their homely environment. Yet although they inspired the love of their students they tolerated no slackness. They did not exude flabby goodwill and, when the occasion demanded, malefactors were rebuked with righteous anger.

Let us persevere in our efforts to achieve a natural friendliness with our pupils and give them a chance of growing in a cheerful happy atmosphere. We shall see that children will match courtesy with courtesy (and ill-mannered behaviour by ill-mannered behaviour). Enthusiasm on the part of the teacher will evoke enthusiasm from the pupils. Trust will beget trust and respect will beget respect.

Above all else, let us be consistent in our behaviour towards our pupils. Unpredictable behaviour worries and upsets children. They seek in adults a stability of behaviour and are lost with teachers who indulge them one day and bully them the next. And so let us always behave naturally and in character with our true personalities, avoiding the ever-present temptation in our profession to "put on an act" to impress our pupils.

Our pupils should see in us a consistent, helpful friend to whom, as an old teacher of mine used to say, "they feel they can go when they have done something they daren't tell their parents about."

All this is not to deny that children should be obedient. Let us insist on a reasonable obedience that is an obed-

ience *which makes sense* to them. For example it is reasonable to expect children to listen obediently when teacher is talking but it is unreasonable to expect them to obey a rule which compels them to utter silence when engaged on some practical activity. Let us insist on reasonable obedience but let us not demand subservience.

Interest, Purpose and Achievement

A CHILD enters the world as a curious being and this instinct of curiosity urges him along a path of discovery. As long as his interest is aroused in discovering about things he will persevere until he has achieved success in his investigations. The child who has succeeded in walking with confidence may see an older playmate propelling himself along the footpath on a scooter. Immediately the child is interested in this, and this interest remains acute until he has mastered this fascinating skill. Interest in acquiring an ability to propel a scooter gave him the necessary purpose (or motivation) to succeed. Subsequently he will come to regard pushing a scooter along the footpath as childish and will probably develop an interest in learning to ride a bicycle. This skill achieved, he will probably find satisfaction for a number of years in riding his bicycle but surely there will come a time when, more adventurous, he will scorn the boyish pursuit of cycling and develop an absorbing interest in motorcycles. This interest will produce determination (a sense of purpose) to ride a motorcycle.

Now the illustrations given show how interest, purpose and achievement are closely integrated. They further prove that there is a "law of readiness" in a child's development. At the age of four or five he is ready for, and interested in, pushing a scooter along the footpath. At the age of seven or

eight he is "ready" to ride a bicycle. At the age of fifteen he is "ready" to learn the mysteries of internal combustion locomotion.

Success in all teaching depends upon the three factors mentioned in the previous paragraph, namely, interest, purpose and achievement. Our first task in teaching is to arouse the interest of the child in the subject or topic we are teaching. We must adjust the subject matter to meet the needs and interests of the age group of the pupils. To pursue our previous analogy we must not attempt to interest the child of five in riding a motorcycle. Such a skill is beyond his physical and mental development. We must always consider the law of readiness in selecting and adjusting our subject matter.

One can not be dogmatic about what will interest a child. Usually the child at the primary level is interested in the "here and now". He is interested in things that are happening around him in his immediate environment. This indicates that teaching should spring from known, familiar experiences. As an example, in our arithmetic lessons, we should use such familiar experiences as shopping, the child's personal expenditure, the family budget, or the dimensions of his classroom. Social studies should be taught through the history and geography of everyday things as, for example, the story of how his village or town is governed or why and how people in the neighbourhood earn their living in a particular way. Language study should be centred first on simple fairy and folk stories, nursery rhymes and poems and playlets and, later on, more realistic adventure stories. The development of powers of simple expression should spring from verbal communication concerning everyday matters in the child's life. It should also be remembered that the child is interested in doing and making things rather than passively listening to instruction. The wise teacher will use this impulse towards activity and

creativity in order to secure and maintain the interest of the child. We shall discuss ways of interesting children when we consider certain methods of education later on in this book.

As we have seen, however, in our introductory paragraph, it is not enough to arouse the interest of the pupils in acquiring knowledge or skill. We can delight, interest and amuse people without necessarily educating them. Interest must not be an end in itself in the classroom. We should arouse the interest of our pupils in order to achieve the aim of our lesson. It has been said that interest is the vehicle which carries the child to understanding, but in addition to arousing the interest of our pupils in what we are teaching, we must stimulate a sense of purpose. Without this sense of purpose the most interesting lesson will fail to achieve its end.

Fortunately the child is almost as anxious as the teacher to see purpose in any activity which engages his attention. Children want to find out about things and will respond purposefully to any sensible assistance which will help them achieve knowledge or skill. If our pupils are clear as to our motive when we teach, and if they approve of our motive, then there is a reasonable certainty that we shall maintain their interest. Moreover it must not be imagined that all skills and knowledge can be acquired in an interesting way. There is a good deal of practice associated with the acquisition of any skill. Behind accuracy there is often a certain amount of drudgery. And it is in connection with such areas of learning and skill that the child must be made to see purpose in repetition and dull practice. The wise teacher says on these occasions, "This may be dull, but it is vital for your future that you learn to write (or read or draw or figure or sing or dance or speak well)." In short, if the child is caused to see purpose in what he is doing he will be prepared to accept an unexciting activity in order to

achieve the stated purpose. There is, needless to say, a vital developmental aspect to such activity in that the moral fibre of the child is stiffened by being obliged to overcome obstacles or press some not altogether pleasant activity to a successful conclusion.

Our teaching should therefore arouse the interest of the pupils, inspire them with a sense of purpose and lead them to the satisfaction of achievement.

The Lesson Plan

NORMALLY the teacher is presented with a syllabus of work which has to be covered within a given period of time. The wise Principal, although he must check at intervals the progress of the pupils in their classes, entrusts the teacher with the scheduling of this syllabus. It is therefore the teacher's duty to consider the amount of ground to be covered in his syllabus in relationship to the number of class periods available in the given period of time.

In distributing the subject material or activities to individual class lessons the teacher should bear in mind:

The Abilities of his Pupils

The Time necessary for Revision

The likely Incidence of Special Holidays, Special School Meetings, Outings, Parents' Days, Prayer Givings, Fire Drills and all the Multitude of Activities which eat away Curriculum Time

A careful schedule (programme of work) is essential not only to ensure that the syllabus is systematically covered but because it will enable the teacher to plan coherently his or her lessons in advance. A day to day planning of lessons will destroy much of the progressive continuity desirable. Thus we suggest that the wise teacher should not plan isolated lessons but rather a whole series of lessons on a topic, activity or skill.

This said, let us now consider the principles and procedures governing a well planned lesson.

There are many types of lesson plans, but I would like to suggest that the Hebartian steps still provide us with the best, basic lesson plan. All our lessons obviously can not conform to any single pattern but if the teacher observes the principles behind the plan which follows, there is a certainty that he or she will conduct a satisfactory lesson.

Suggested Plan

Preparation

Introduction

Aim

Method (Presentation)

Application

Revision (Conclusion)

May we discuss these phases of the lesson in some detail.

Preparation

Few human endeavours succeed without careful planning, and class teaching is no exception to this rule. However knowledgeable we may be, however glib we may be and however certain we may be of what we wish to teach, we must plan how much and by what method we propose to teach. Time must be our first consideration. How many times have I heard the bell ring for the closing of the lesson when my lesson has been half completed?

Firstly, we must plan our lesson, I suggest, on the basis of two main factors, one, the time and method of our own activity (presentation), and, two, the time and nature of the pupils' activity—not forgetting to allow at least five minutes before the end of the period for adequate revision.

Secondly, we must plan our lesson in terms of a specific objective for that lesson, i.e., precisely what we wish to achieve in the thirty or forty minutes at our disposal.

Thirdly, we must plan our lesson with regard to the age and aptitude of our pupils.

Fourthly, we must prepare *ourselves*. Have we the requisite knowledge and background? Can we perform adequately the skills we propose to teach? Have we considered the manner we should adopt for the lesson, e.g. matter-of-fact or emotional or provocative?

Fifthly, we must prepare all the materials and aids necessary for the lesson. Have we arranged these materials (specimens, charts, illustrations, maps and diagrams) in a sensible manner so as to achieve sequence and unity in our lesson? We must have at our disposal the following:

Clean Blackboards

Chalk—Coloured and White

Eraser

T. Square

Stiff Boards on which to pin Illustrations

Drawing Pins

Scotch Tape

Display Tables for our Specimens

Appropriate Seating and Working Arrangements

Sixthly, we must ensure that our pupils are prepared *before the lesson starts* with everything necessary for the lesson or activity, e.g.:

Pen, Ink, Pencils, Crayons

Paint, Water, Eraser

Exercise Books

Drawing Paper

Rough Paper

Text Books

I have seen infinitely more lessons ruined by neglect of these simple preparations than by inferior teaching technique. In my view a sound teacher should consider himself

as a stage manager who must have all that is necessary in the way of effects, scenery and properties available at the precise moment that they are needed so that a smooth production is achieved.

There is, moreover, a vital psychological aspect to this question of careful preparation. Children react quickly to efficiency. If they are obliged to behold daily a fumbling, ill-prepared teacher they will speedily lose respect for such a person. On the other hand the daily spectacle of business-like preparation on the part of their teacher will earn their admiration—and, incidentally, their polite attention.

Consider these two case studies.

Case 1. (Miss Careless)

Teacher, "Now children I have described for you these Old Stone Men. Now I am going to show you a picture illustrating the sort of caves they lived in. Now let me see, where did I put that picture? I thought it was in the drawer of this table. Perhaps it is in the cupboard", (teacher walks to the cupboard and searches amongst a heap of pictures, materials, books, old models, exercise books—waiting for correction). She sighs, "Oh dear, I must have left it in the staff-room. Or perhaps I left it at home." (The pupils loll back in their chairs with an expression of contempt on their faces for this scatterbrained, inefficient teacher).

Case 2. (Miss Careful)

Teacher, "Now children I have described for you these Old Stone Men. Now here I have a picture showing the sort of caves they lived in". (Teacher immediately takes from the table a large, bold picture securely fixed on to a firm plaster board and holds it in front of the class).

Alas, in the classrooms of the world there are too many of Miss Careless's type, who fail to realize that efficient preparation is the secret of sound class teaching.

Remember:

Prepare your lesson.

Prepare yourself.

Prepare your materials and aids.

Prepare the material and aids of your pupils.

Introduction

If the lesson has been sensibly prepared, the teacher will have taken pains to plan a suitable introduction.

The introduction should not only set the atmosphere or mood for the lesson, but it should gather together the children and focus their concentration on to the subject in hand.

Let us consider the state of the children before we begin our lesson. They may have just arrived in the classroom from the playground and accordingly are probably breathless and possibly excited about the games, fights, arguments, jokes and school gossip which have engaged their attention for the last ten minutes. On the other hand, they may have finished a lesson on either Long Division or History (or, at any rate, some subject very different from that now to be taught). In short their minds are either in a whirl of excitement, or conditioned by the subject previously taught (especially if the blackboard summary of the previous lesson is before their eyes). Under such circumstances it is folly for the teacher to plunge into the next lesson until the thoughts of the pupils have either been unwound or calmed.

A good introduction is simply this process of disengaging the thoughts of the pupils from their present occupation and engaging them with the new topic or activity. If this is done too abruptly the teacher may proceed towards the new lesson with half his pupils still re-living the wonderful game they have been playing, or still pondering over the difficulties of the Long Division examined in the previous lesson.

To prevent initial inattention, I believe that we should pay attention to two aspects of the introduction stage of our lesson.

Social Introduction
Subject Introduction

Let us greet the children courteously and discuss with them the exciting things they have been doing. Let them, as is said, "get it out of their system", or "get it off their chests". Let us be human and sociable with them for a minute or two and gradually calm them down by friendly conversation.

After this brief social introduction, let us then introduce them to the nature of the present lesson. This is perhaps best achieved by reminding them (by questioning) of the ground covered in the previous lesson on the subject, or activity in hand. Educationally, it is vital to proceed from the firm base of the "known" before attempting to explore the territory of the "unknown".

Let us again consider the approaches of Miss Careful and Miss Careless.

Miss Careless (The children clatter into the room wildly thrilled by the game they have been playing, known as High Cock o' Lorum): "Hurry up now, sit down and sit still. Do stop shuffling about. Now pay attention! I'm going to talk to you about the New Stone Men today, so listen carefully . . ." Away Miss Careless speeds with the attention of less than twenty-five per cent of the pupils on the New Stone Men and with the thoughts of the other seventy-five per cent of the pupils dwelling lovingly on the game of High Cock o' Lorum.

Miss Careful (Situation as before): "Well children, you seem very excited. What have you been doing? Now wait. Ali shall tell us (Ali describes the details of the climax of High Cock o' Lorum). My word it does sound a wonderful game, no wonder you are all so hot and excited. I suppose

High Cock o' Lorum is a very old game. I wonder if they played it in the days of the Old Stone Men. What do you think, Jamshid? (Jamshid laughs and expresses his view that they might have played it). Yes, I don't see why not. After all you will remember that, in our last lesson on the Old Stone Age we discovered that they daubed pictures of hunting scenes and games on the walls of their caves. I'm sure they would play games of some sort. Now can who remember what these Old Stone Men wore for clothes? (The correct answer is given). Yes, now who can describe for me the way they lived? (Doro tells the class that the Old Stone Men hunted, fished and lived in caves). Good, now we seem to know all about the Old Stone Men and so to-day let us find out about the next type of people who inhabited the earth. Not the *Old* Stone Men but . . . who can suggest the name . . . the opposite of *Old*? Yes Carim, that's right, the *New* Stone Men."

Remember:

Introduction is the bridge between the previous activity and the present activity.

Introduction creates the new mood for the new lesson.

Introduction is necessary to prepare the minds of the children for the new topic of activity.

Introduction is the process of rallying the minds and bodies of children to face a new experience.

Aim

Following a successful introduction the teacher must state emphatically the *aim* of the new lesson or activity. The pupils must know the purpose and objective of the lesson. If they know clearly what they are supposed to achieve then their thought processes will follow more easily the teacher's exposition, explanation or the steps of the argument.

A small but very important warning should be given at this point concerning the manner in which the *aim* is stated. Too many teachers announce the aim in this way.

"To-day children, *I* am going to teach you about the subtraction of vulgar fractions." or, "To-day, children, *I* am going to tell you about the discovery of America by Christopher Columbus".

Now the reaction of the pupils to such statements is on the one hand passive. Their attitude is "Teacher is going to do all the work, good, we'll just sit back and listen". On the other hand, no specific problem being presented to them, their minds are not concentrated on achieving anything. There is no impulse to succeed. They may be mildly interested but their thought process is not sharply stimulated.

But the teacher who announces the aim thus, "To-day children, *we* are going on a voyage of discovery with a man named Christopher Columbus", immediately presents the pupils with new problems and engages them actively as partners in the lesson. A will to succeed has been evoked. In short, it is the pupils' lesson and not the teacher's.

Remember:

A class of pupils without an objective is like a leaderless army.

The pupils must know where they are going.

The *aim* of the lesson must be stated clearly and emphatically.

If the pupils know the objective of the lesson they may reach it in spite of inefficient teaching.

Method (Presentation)

To my mind there is a danger in dogmatizing on methods of teaching. Teachers differ in personality. Children differ from locality to locality—even in respect of their mental and physical development. Thus, as teaching method is largely governed by these three factors, environment,

teacher and pupil, it is unwise to lay down a series of methods of teaching which may be universally applied. Later in this Guide we shall discuss certain traditional and progressive methods of teaching but in this section we propose only to discuss certain principles behind the teaching methods.

In the first place I would like to list certain principles which should guide us in determining our teaching methods.

- (i) Every method we use should be based on an understanding of the pupils in our classroom—not an understanding of children we have read about.
- (ii) Every method we use should be one which we thoroughly understand and believe will be successful with the pupils in our classroom and not merely one which we have heard is successful.
- (iii) Every method we use should stimulate the pupils to think and co-operate actively.
- (iv) Every method we use should lead the pupils to a sense of achievement through *interest* and *purpose*.
- (v) Every method we use should be based on the realization that the word education derives from a Latin verb *educō* which means “I bring up” or “I nourish”. Education is a “drawing out” and not a “putting in”.

Mindful of the above points let us now examine the agents which stimulate a child to learn and through which he acquires knowledge and skill.

Four Instincts

I do not propose at this point to discuss all the debatable instincts of the child but merely wish to consider those instincts which are principally concerned with his educational development and which we must consider when planning our methods of teaching. There are four vital instincts in this connection:

The Instinct of Play
 The Instinct of Imitation
 The Instinct of Curiosity
 The Instinct of Competition

The Instinct of Play. All children play. Play is the means by which Nature achieves the physical and mental development of children. With this demanding and creative instinct ever present it is folly on our part to ignore it or to suppress it in the classroom. The wise teacher exploits this instinct of play and through it leads the child joyfully to the acquisition of knowledge and skills. Let the children play shop or enact the role of banker, farmer, business man, surveyor, engineer, or plumber, to learn their elementary arithmetic and science. Let them learn through activity. Let them dramatize their language study, their prose reading and their poems. Let them dramatize their History and Geography. Let them carry out their drills in spelling, vocabulary and multiplication tables through enjoyable team games. Let us remember too that, at the primary level, play is of vital importance in the child's social development. He acquires sound patterns of social behaviour as he learns to observe the rules of the game and respect other members of the group.

Susan Isaacs writes in her book, *The Children we Teach*, "The evidence quoted shows, too, that one of the main stimuli to the expression of reasoning in words comes to young children from their practical interest in play, and from the discussions and arguments which their play interests give rise to. When occasion calls for it, they break into theoretical statement, although they can not yet sustain verbal thinking. And whilst the ability to think in hypothesis, so essential an element in scientific thinking, does not appear in any systematic way until the age of eleven or twelve years, yet it can be seen springing up here and there in the talk of children very much earlier. It is called

out by imaginative play, or by the child's need to forecast the future in his practical pursuits."

In preparing the lessons and activities for the primary and lower secondary age groups we must have the child's instinct of play to the forefront of our minds.

Instinct of Imitation. It has been said on many occasions that education is "caught not taught". Children are naturally endowed with powers of mimicry and the class teacher is one of the child's principal targets so far as imitation and mimicry are concerned.

Therefore we must ensure, as far as we possibly can, that everything the child sees and hears is *worthy* of imitation.

Our own speech must be worthy of imitation.

Our writing and tidiness must be a model worth copying.

Our manners and behaviour must be so worthy as to guide the pupils to courtesy and sound social habits.

Our powers of organization must be worthy of imitation.

Our attire and appearance must be models of neatness and tidiness.

The manner in which we perform the skills or activities we wish to teach our pupils must inspire them to imitation.

The Instinct of Curiosity. We have already considered this instinct and the desirability, when stating the aim of our lesson, to present the child with problems which excite his curiosity. It is not exaggeration to state that the child's curiosity to discover and find out about things should be the mainspring of all our teaching. A successful teaching method not only satisfies the pupils' curiosity but also prompts them to know more.

The Instinct of Competition. However much it is to be lamented, the spirit of competition exists in all beings. As

this instinct persists it is folly to ignore its educational value. Competition stimulates effort and accordingly should be introduced into our teaching methods. We would be foolish not to tap this urge to succeed which is so potent in our pupils. But let us harness it and eliminate the associated evils of jealousy, rivalry, conceit and deceit. It is possible to use this competitive spirit into team activities so that the pupil plays or scores marks or credit for his team. Competitive team games will not only lessen the boredom of drills but will urge the pupils to do well for their teams. It is vital also that we relate individual performance to the individual differences of the pupils. Remember credit should be given for progress not necessarily high attainment.

The Senses

We have discussed certain vital instincts from which the impulse to learn springs. Let us now consider the main physical agents which enable a child to acquire skills and knowledge. They are:

- The Hands—Learning by Touching and Doing
- The Eyes—Learning by Seeing
- The Ears—Learning by Hearing
- The Mouth—Learning by Saying
- The Nose—Learning by Smelling
- The Taste—Learning by Tasting

Although we shall examine how these senses may be used in our methods of teaching it should be emphasized that they rarely work independently. If we work with our hands there is a co-ordination achieved by the mind of sight, touch and hearing. If we dance and sing our minds, limbs, ears and eyes are all engaged in co-ordinated effort.

The Hands—Learning by doing. It is by the feel of things, through the sense of touch that the infant first acquires

knowledge, skills and experiences. And throughout our lives we learn most by doing and certainly retain in our memories things we have "actually done" with our hands. For this reason activity, doing and making should be the dynamo which stimulates the primary school child's learning. Physical experience is the most successful teaching agent in the child's life and when these experiences which we offer the child evoke his imagination and creativeness, then educational development takes place.

In devising methods of teaching we must say to ourselves first and foremost, "What are the children going to *do* in their lesson?" not "What am I going to teach in this lesson?" We must ensure that in every lesson the child will make something, model something, paint something, draw something, write something, feel the shape of something, or mime something. It is important to ensure that such activities are not aimless, but are directed activities, each with a specific learning aim. Here are a few practical illustrations of learning through doing.

- (i) Teach measurement and areas by making the children measure the classroom.
- (ii) Teach about cubic capacity by making the pupils accurately construct a cube of given dimensions from cardboard.
- (iii) Ensure that comprehension of descriptive prose or poetry is achieved by asking the pupils to paint a representation of what they have read.
- (iv) In Social Studies, for example, let the children make a model of the sheep station in Australia or let them make a model of the Parliamentary Chamber or the battlefield or the Norman Castle.
- (v) In Nature Study let the pupils handle and examine the flowers, leaves or fruit. Let them draw and paint them.

- (vi) And if the foregoing are not feasible at least let the pupils copy a clear blackboard summary into their notebooks.

Do, Do, Do, Make, Make, Make.

The child's activity should predominate in the lesson, not the teacher's.

Learning by seeing. At a very early stage in the child's life he begins to learn about his immediate surroundings through his vision. First he touches and then he discerns. Gradually as he develops physically he discovers the exciting things in his immediate environment by gazing at them and submitting them to visual examination.

In our teaching we must ally our method to this immense, educational force, the child's sight. Whenever we teach the child we should make every effort to offer him a visual experience of what we are teaching. Notice at this point how the child's urge to imitate is associated with his power of seeing.

Here are a few practical examples of visual education.

- (i) The child will gain a more accurate impression and will retain a lasting image of something which is shown to him rather than something about which he hears. e.g. We shall save ourselves involved descriptions of life in the Arctic if we produce a picture of Eskimos living in the Arctic.
- (ii) The outstanding points of what we tell the child should be presented to him visually by means of a bold blackboard summary.
- (iii) Whenever possible let us allow the child to see actual specimens, accurate models, diagrams or simple experiments.

(iv) Let us ensure that what we teach the child is reinforced by asking the child to read well-illustrated text books on the subject matter.

(v) If we wish to teach a skill let us demonstrate this skill "before the eyes" of the pupil.

Don't talk about it if you can show it.

Learning by Saying. Notice how an infant constantly repeats things which he hears. When he learns the name of some object he will in all probability express his new knowledge by saying the word over and over again. Later on in his life he questions, answers, converses, describes and explains by word of mouth. Verbal communication is a great source of education and yet unfortunately the effective teacher is very often judged on the *silence* in his classroom.

Be quiet!

Stop this chattering!

Stop talking!

No talking!

Silence!

The above prohibitions still ring through every school in the world. The ideal teacher is still personified by the tough man "who can keep them in order". The ideal child is still personified by the "quiet, obedient little boy".

The teacher who prides himself on his discipline and his ability to keep the pupils quiet will also rail about the inability of his pupils to express themselves verbally—having denied them any opportunity of verbal communication for twelve months.

We must encourage the pupils to express their thoughts in words. We must question their comprehension by asking them to explain for our benefit and for the benefit of the class what they have learnt. We must realize that clear thought and clear speech are interdependent.

We must not deny our pupils their natural impulse to chatter (provided of course we do not require their close attention to anything we are saying) when children chatter they are "sharing" their thoughts and experiences with their classmates and knowledge may well result.

We must remember that there is an educational factor of great importance in a command of words and in verbal fluency. Confidence and self respect spring from a capacity for expressive speech. A child's whole personality will develop if he finds himself capable of expressing his thoughts coherently and logically before his classmates. We must not deny our pupils the vital educative experience of putting his thoughts into words.

- (i) Children learn through verbal repetition.
- (ii) Children learn through conversation, i.e. sharing their thoughts and experiences.
- (iii) Children develop "clear thought" in association with "clear speech".
- (iv) Children develop strength of character and acquire confidence through acquiring the "power of speech".

Learning by smelling and tasting. Although these senses are educational and teach us a great deal in the Science Laboratories and Domestic Science rooms, they are not of great importance in formal education.

Learning by Hearing. I have deliberately placed this learning agent last on my list so as to minimize its importance. In many institutions of education one would imagine that learning by the ear route was the only avenue along which learning was conveyed. Although it is true we have moved a considerable distance from the conception that teaching consists of a talker and an audience, teaching is still identified with a wise adult pouring knowledge into

the ears of attentive pupils. The teacher's exposition and explanations (please look up these words in a dictionary and note the difference in meaning) still occupy too much time in the average lesson.

Now, as we have seen, the child learns best when he is active, doing and seeing. Accordingly we must restrict our talking to the minimum so as to give these learning agents their maximum opportunity.

It has been proved that children up to the lower secondary level can not concentrate aurally on a single topic or argument for more than seven or eight minutes. Very often teachers mistake their pupils' passivity for attention. There is a humorous saying amongst priests that no souls are saved after the first ten minutes of a sermon. There is much truth in this and the wise teacher interrupts her verbal presentation by questions or practical activity so as to achieve variety and "keep the pupils awake".

Remember it is the *pupil's* lesson not your lesson. Restrict your talking to a brief introduction, statement of aim and a short, thought-provoking exposition or explanation and then employ to the full the hands, eyes and mouths of the pupils. Then only at the end of the lesson should you use your voice emphatically to summarize the lesson. Try to draw verbal explanations from the pupils. If they find out things themselves and reach solutions by constructive reasoning there will be infinitely more satisfaction for them than if they are constantly "told" by their teacher. Miss Knowall. There is an old saying which all teachers should practise. *Stand up, speak up, shut up.*

In sum your methods of teaching should:

Make the pupils Think
 Make the pupils Do
 Make the pupils See
 Make the pupils Say
 Make the pupils Hear

Application

The next step in our lesson is known as the application which, as the word implies means that the pupils apply the rule, skill or knowledge taught, to realistic situations or kindred problems. In former times application merely consisted of the pupils proving by stereotyped exercises that they had learned what teacher had taught them. The very words "test" or "exercise" explain this former conception. Without denying the value of this practice, we find that application has, to the progressive teacher, a much wider significance. As we have decided, it is vital that the teacher employs an interesting, imaginative and lively method of presenting his subject matter. Equally it is vital that such a presentation is matched by an interesting, imaginative and lively application. Consider the approach to application by Miss Careless and Miss Careful.

Miss Careless: Situation: The children have been taught Simple Interest. Miss Careless: "All right I've taught you Simple Interest, now work out these sums which I'm writing on the blackboard."

Miss Careful: Situation: The same. Miss Careful: "Now children we have seen why it is sensible either to put money in the bank or invest it in the shares of a sound business firm. Supposing your father won \$10,000 in the lottery and didn't want to spend it. Now what do you think he ought to do with it! Yes, Shaidah."

Shaidah: "Put it in the bank, Miss."

Miss Careful: "Right, he could put it in a deposit account in the bank, couldn't he? That would be better than putting it in an old stocking under the floorboards, wouldn't it? Yes, Musa?"

Musa: "Please Miss, why not invest it in shares?"

Miss Careful: "Yes, I think that would perhaps be better, provided the shares were safe. As for example Government Bonds which pay five per cent. Now I want you to find out

how much your father's money would be worth in ten years' time if he invested his \$10,000 in Government Bonds which pay an interest of five per cent. Now find out how much money your father would make in ten years."

Miss Careful's application is interesting and thought-provoking because she has personalized the problem for the children who are now engaged in solving a realistic, human problem. They are in fact living a real-life experience.

Let us be imaginative about the application section of our lesson. Let us not be repetitious and demand of the pupils dull exercises, drills and compositions. Let us, whenever possible, relate and associate the rules, skills and knowledge we teach to everyday problems and situations. For example, if we have been teaching the use of adjectives let us not test the pupils by such formal questions as:

What is an adjective?

Which of the following words are adjectives?

How many adjectives are there in the following passage?

Rather let us give the pupils an opportunity to use adjectives realistically in a simple prose passage so that they can realize how adjectives heighten description and achieve accurate definition. Let us, for example, show them a picture of a beautiful landscape and then ask them to describe it, using certain adjectives already made known to them.

In social studies ask the pupils to construct, for enactment next lesson, a little play about the historical incident or ask them to draw or paint a picture of the vegetation, scenery and occupations of the people in the geographical area they are studying.

The application should not only cause the child to see the practical implication of what he has been taught, but should enable him to express actively his thoughts and feelings about it.

Remember:

Knowledge and skills must be applied and practised if they are to be lasting benefits to our pupils.

Minimum of presentation, maximum of application.

Match an interesting presentation by an interesting application.

Revision (Conclusion)

"Teach little, revise much" is an excellent slogan for a teacher. The truth of this is perhaps emphasized by the oft repeated words of weary teachers, "If I've told you once, I've told you a thousand times."

It is foolish to imagine that more than thirty per cent of anything we teach for the first time will be absorbed by the pupils. For this reason we must, as we have stated so often, reinforce what we have taught by causing the pupils "to see, say and do" the things we have presented to them orally.

Revision is essential to any piece of teaching and without it the ablest presentation will only be partially successful. We must revise *as* we teach and we must revise *after* we have taught.

It is vital that no lesson should be concluded without an emphatic summary of what has been taught. At least five minutes must be allocated by the teacher in the lesson plan for this purpose of hammering home what has been taught, by a systematic review of what has been achieved.

Just as we began our lesson with such words as "To-day children we are going to find out why the carpet industry developed in Iran" so we must end our lesson with such words as "Now children before the lesson ends let us go over the main reasons why we have a flourishing carpet industry in Iran."

This summary should be first drawn from the pupils by

questioning and then repeated with vehemence by the teacher as he points to the main items summarized on the blackboard. Revision is thus oral, aural and visual. The teacher speaks and illustrates and the pupils hear and see.

Remember:

Revision, Revision, Revision.

Let us summarize and revise the stages of our lesson.

We have *prepared* our lesson thoroughly.

We have *introduced* it humanly.

We have stated our *aim* clearly.

We have employed an interesting *method*.

We have devised an imaginative *application*.

We have *revised* our lesson decisively.

Is this enough? Is there anything else we ought to do before the pupils depart? Yes, just one thing more and let Miss Careless and Miss Careful illustrate the one thing still to be done in our lesson.

Miss Careless: "Well, now I've gone over all the main points of the lesson. Off you go now, the bell will ring any second."

Miss Careful: "Well, that's fine, it's clear that you all know how to use adjectives and realize how these useful describing words help the nouns they are concerned with. Now just before you go I wonder if there are any words which help verbs in a sentence? All right, just think about this because in our next English lesson we shall talk about words which help verbs."

The difference between Miss Careless's conclusion to the lesson and that of Miss Careful is that, in common with all good teachers, the latter realizes that one of the principal aims of our primary schools is to stimulate *curiosity*.

Our final words in the lesson should always rouse the pupils' curiosity to know more.

Questioning

In the average class lesson, questioning is an *ad hoc* affair; that is to say it has rarely been pre-considered in relationship to the development of the lesson or carefully adjusted to the ability of individual children. Questioning is an important educational method. The Socratic method of teaching relies entirely on the art of questioning to secure a logical development of an argument. Too many teachers look upon questioning merely as a means of testing the knowledge of the pupils and, although this aspect of questioning has undoubted uses, it should not be the sole reason for questioning. Let us consider the reasons for questioning. They are, I suggest, the following:

- (i) To ascertain what our pupils already know.
- (ii) To revise the main facts or arguments of the immediate lesson.
- (iii) To stimulate curiosity and develop our lesson.
- (iv) To test the pupils' ability to apply the skill, knowledge or rule we have taught them.
- (v) To develop self-confidence.
- (vi) To evaluate our teaching ability.

Reasons 1 and 2 are self evident. We must constantly check that the pupils are assimilating the knowledge and skills we teach and following our arguments with logical thought. We must have systematically recorded evidence of the pupils' progress.

Reason 3 is perhaps the most important type of questioning because upon it depends the development of the stages of our lesson. Our questions must not only arouse curiosity but maintain it. Accordingly these questions must be considered with special care. Precision is necessary not only from the point of view of the type of question but also from the point of view of the timing of the question. Such

questions, therefore cannot be "spur-of-the-moment" questions, but must be woven into the pattern of our teaching method. Specific questions are required to achieve specific solutions. We must persist until we achieve the answer which allows us to proceed to the next step in our lesson.

Reason 4 has already been adequately considered when we discussed the application of the lesson. Obviously we must ensure that the pupils are capable of relating or associating the knowledge skill or rule they have acquired in the lesson. Education, as opposed to instruction, is the ability to relate, associate or apply abstract concepts and rules to the life and conduct of affairs in the community.

Reason 5 is frequently ignored by teachers. Well-considered questions can build up a child's self-confidence but ill-considered questions can demolish it. For this reason we must adjust the degree of difficulty of our questions to the degree of intelligence and ability of individual pupils. The dull boy must not be driven to a feeling of frustration by being asked questions which he can never answer correctly. The questions posed to him should be so graded as to enable him to acquit himself with success. On the other hand questions to the bright child should be of such a difficulty that they will "stretch" his intelligence and make *him* think hard. Questions which the bright child can answer without mental effort may make him either conceited or indolent.

Reason 6 must be continually to the fore in our minds. The sound teacher is one who reproaches himself when the pupils reveal lack of apprehension or comprehension. If the pupils, subsequent to questioning, reveal that they have failed to grasp the essentials of the lesson, the wise teacher does not punish the pupils on account of their inattention, but examines critically his teaching method. Miss Careless would say: "Why are the pupils so stupid?" Miss Careful would say: "Why is my teaching so stupid?"

The Technique of Questioning

It would be profitable to consider certain modes of questioning. Not infrequently the pupils fail to answer correctly because of the way in which teacher poses the question. Let us indulge in a little self-evaluation on our own questioning.

- (i) Do we bark out our questions in a sharp manner which so agitates the pupils as to preclude clear thinking? OR:
- (ii) Do we question slowly and quietly in a manner which encourages the pupils to think carefully?
- (iii) Do we, when we question, adopt a superior attitude and infer that the pupil is an idiot if he doesn't know the answer? OR:
- (iv) Do we question in a friendly, humble manner which does not create a feeling of inferiority in the pupil?
- (v) Do we ask questions which invite a chorus answer?
OR:
- (vi) Do we pose specific questions to specific pupils?
- (vii) Do we try to "outwit" or "trick" the pupils into making fools of themselves or revealing their ignorance? OR:
- (viii) Do we frame our questions in a simple, straightforward manner which evokes a cheerful and trusting response from the pupils?
- (ix) Do we take the answer from the pupils with their hands raised? OR:
- (x) Do we probe encouragingly for the answer, from those with their hands down?

If we can answer questions 1, 3, 5, 7, and 9 in the negative and questions 2, 4, 6, 8, and 10 in the affirmative, then we are skilled questioners.

Methods of Teaching

“The first faculty of the infant mind to be developed is the faculty of observation.”

Pestalozzi: *How Gertrude Teaches her Children.*

WE have already said a good deal about teaching method and have explained some of the guiding principles behind these methods. Let us reconsider them for a moment.

- (i) The lesson method used must take into consideration the age, ability and aptitude of the pupil. The “Law of readiness” must be applied.
- (ii) The lesson method used must evoke and maintain the interest of the pupil.
- (iii) The lesson method used must ensure that the pupil sees purpose in the lesson.
- (iv) The lesson method used must secure the maximum thought, co-operation and activity of the pupil. “Education is a drawing-out not a putting in.”
- (v) The lesson method used must lead the child from known, familiar things to unknown and unfamiliar things.
- (vi) The lesson method used must present a problem or challenge to the pupil.
- (vii) The lesson method used must leave the pupil with a sense of achievement.

- (viii) The lesson method used must utilize the pupil's instincts of play, imitation, curiosity and competition.
- (ix) The lesson method used must utilize the pupil's senses, especially sight, hearing and touch.
- (x) The lesson method used must be one thoroughly understood by the teacher and not used merely because he has been told to use it.

Bearing in mind these ten basic principles let us examine certain methods which have become accepted as effective throughout the world over the years.

Chalk and Talk

A teacher, a pupil, blackboard and chalk have for long symbolized teaching in school. The Chalk and Talk method of teaching whereby the teacher presents and develops an exposition, argument or topic verbally to the pupils and, either simultaneously or at the conclusion of his exposition, summarizes under headings or illustrates diagrammatically the essential factors of the lesson on the blackboard, is a sound method of teaching. It is sound, if handled carefully, because two vital senses of the pupil are used, namely his hearing and vision. What he hears is reinforced by what he sees and therefore will probably "stick" in his memory and lead to a development in his thought processes as the stages of the lesson proceed before his eyes on the blackboard.

There are certain dangers however in Chalk and Talk. The first is that the pupil may be too passive and inactive. He listens and looks but what does he do? Secondly there is a tendency for Teacher to monopolize the lesson with his talk and to spend too much time writing or drawing on the blackboard with his back to the pupils, thereby presenting almost irresistible opportunities for the class clown to perform, to the joy of the pupils but to the detriment of the

lesson. Thirdly there is always the danger that the lesson will develop too rapidly for the less gifted pupils.

How can we avoid these dangers?

In the first place the Talk and Chalk should not be confined to Talk and Chalk by the teacher. Again the old saying is true that no souls are saved after the first ten minutes of a sermon. In a classroom "the curve of interest" rule applies and it is doubtful if many pupils up to the middle-secondary level can maintain interest in a continuous verbal presentation for more than eight minutes. As teachers let us remember this "curve of interest" and restrict our "talk" to a minimum. Let us instead make the pupils talk. If, as we should, we present our lesson as a series of problems to the pupils, it should be a simple matter to engage them to express their views and draw the exposition from them rather than "telling" them all the time. Remember "it is their lesson not yours." Their full co-operation will be maintained because, knowing that they may be asked to make a reasoned contribution, they will listen attentively to the development of the exposition.

Again to promote their activity we ought as teachers to enlist their support in the "chalk". Have you noticed how intently children watch one of their classmates write, draw or work out a sum on the blackboard? It is a vastly more interesting spectacle than watching teacher perform who, after all, is paid to do it! A pupil will take immense pride in building up a blackboard summary or constructing a diagram. If the pupils are encouraged to help with the blackboard work there will be not only a "seeing" but also a sense of "doing".

The second danger of the Chalk and Talk method lies in the lack of technique on the part of the teacher both as a "talker" and a "chalker".

If you as a teacher intend to talk in a lesson then talk in a lively, vital, persuasive and enthusiastic manner. How many

times, when I have heard a teacher complain, "Now children you are not paying attention", have I said under my breath "No wonder!" Having talked in a dull, lifeless, uninteresting manner for half an hour teachers will upbraid their pupils for inattention. Remember then that your "talk" must arouse and maintain the interest of the pupils. It must vitalize their thoughts, probe into their consciousness and keep them alert and co-operative. It must make them laugh, make them sigh, make them wonder and make them speculate. It must not be soporific.

By the same token your "chalk" must be lively, colourful, vital *and* legible from the *back* of the class. Your blackboard summary should smite the consciousness of the pupils like a striking poster. It should be simple, bold, neat and uninvolved. Every teacher should become an expert on the blackboard. Forget the strip projector and the cine projector; as teachers your No. 1 Visual Aid is a piece of chalk and a clean blackboard. An additional and powerful factor in connection with technique on the blackboard is that, if you prove yourself skilful with chalk you will earn tremendous respect from the pupils who, it is not often realized, despise inefficiency and appreciate efficiency as much as any adult.

To Help You Teach by Chalk and Talk

- (i) Present your lesson as a problem or series of problems to the pupils and draw from them the development of the lesson.
- (ii) Encourage them to express their views by prompting their thoughts by well considered questions.
- (iii) Encourage pupil activity on the blackboard.
- (iv) Ensure that your "talk" is vital, lively and interesting.
- (v) Ensure that your blackboard work is clear, bold and expressive
- (vi) A blackboard summary should be a poster.

Activity Method

"Let cheerfulness abound with Industry."

Robert Louis Stevenson

Over the first years of this century there came a revolt against traditional methods of teaching, as teachers all over the world accepted the idea that education should be child-centred rather than subject-centred. Briefly, to-day, the child is considered to be more important than the subject and the function of education is no longer considered as a process through which the child amasses facts and knowledge. The subjects of the curriculum are now considered as media through which the child's personality and potentiality are developed and through which he becomes a happy and useful member of the community.

Clearly there can be no development or growth if the pupil is regarded as an immobile receptacle into which knowledge (much of it useless and irrelevant to life) is poured. Development postulates activity, mental and physical. Thus there has come a shift in emphasis from passivity to activity on the part of the child in education throughout the world. The wise teacher nowadays seeks the active co-operation of the pupil every lesson. Education is a partnership between pupil and teacher.

Before we consider a few outstanding activity methods let us utter a caution. Activity and, more in particular, "free activity" has become a dangerous slogan amongst some teachers. Free, wild, unplanned activity in the classroom, library, laboratory or school is foolish. I have been in schools which have been conducted entirely on a basis of "discussion activity". In such schools there was no education but merely a "pooling" of ignorance. Furthermore the pupils were bored, bewildered and unhappy, as children always will be, who lack the security of firm but friendly guidance.

Activity which is unplanned is dangerous to a child's

stability. All activity in the school should be carefully directed activity leading to definite goals. Activity cannot always be fun and games. Often it should take the form of downright, hard work. Activity should always be purposeful. Activity for activity's sake is educationally useless.

Mindful of these strictures let us consider some activity methods.

The Project System

In the strictly educational sense the project system of education implies a recasting of the entire curriculum of the school so that the pupils concentrate their activity on one immense project. A school for example may develop a project on "Our Town" which would involve a study of all aspects of the economic, geographical, historical, civic, racial and intellectual development of the town in which the children dwell. In such a project the pupils study and report on the various subjects of the curriculum realistically in relation to their own environment. The integrated life of their community obliges an integration of their studies. An assignment for example on the "Localization of the Town Industry" links their History with their Geography. An assignment on "Local Taxation" connects Mathematics with a study of Civic Responsibility. An assignment which involves a large scale model of the Town interrelates Art, Handicraft, and Mathematics. An assignment which demands a survey of the Social Services of the Town, embracing the Electricity Department, Water Department, Sanitation, etc., obviously offers scope for realistic studies in General Science. Interlocking all such assignments is, of course, the written word. Accurate reporting, systematic tabulation and compilation, neat drawings, imaginative painting and modelling are all concomitants of great, educational benefit to the pupils.

The logical follow-up of a project on "Our Town" would

be "Our State", "Our Country" and "Our World".

The Project System is not recommended as an entire system of education because of many reasons. In the first place it is difficult in such a system to plan the assignments so as to ensure that all the basic skills are practised by all the pupils or that a uniformity of knowledge is acquired by all the pupils necessary for public examinations. Other drawbacks are found in the immense material resources required, in the difficulty of adequate grading and assessment of the pupils' progress, in the extraordinary care needed in planning and dovetailing the assignments into the whole project and in the problem of preventing a percentage of the pupils from aimlessly frittering away their time.

Yet, although it must be admitted that the project system as a single system of education has many failings, as a method of teaching it has many advantages, but let me emphasize "as *a* method not as *the* method". In all subjects the project method can be used, from time to time, with first class results. Within our subject areas it is not difficult to plan small projects which will involve the eyes, ears and hands of our pupils in an interesting group activity.

The value of the project approach rests in the following:

- (i) It involves the pupils in purposeful activity.
- (ii) It integrates the subjects of the curriculum.
- (iii) It provides realistic studies in the pupils' own environment.
- (iv) It develops the curiosity, initiative, enterprise and the imaginative faculties of the pupils.
- (v) It co-ordinates the minds, eyes, ears and hands of the pupils in a single task.
- (vi) It provides the pupils with a sense of achievement.
- (vii) It offers a valuable training in team work.
- (viii) It develops proficiency in the basic skills.

Topic Method

In close relationship to the project approach is the use of the Topic Method. As the name implies the studies of the pupils are centred on a topic chosen from one of the subject areas which usually relates to the everyday life of the community. In Social Studies for example topics which may be investigated are:

- The Story of Government
- The Story of Transport
- The Story of Law and Order
- The Story of Abdul Rahman
- The Story of Resa Shah
- The Story of Kwame Nkrumah
- The Story of Mahatma Ghandi
- The Story of Ferdowsi
- The Story of Omar Khayyam
- The Story of Louis Pasteur
- The Story of Florence Nightingale
- The Story of the Carpet Industry in Iran
- The Story of Oil in Iran
- The Story of Cotton in Iran
- The Story of Rubber in Malaya
- The Story of Tin in Malaya
- The Story of Cocoa in West Africa
- Our Clothes

In Mathematics and Science realism will be given to these subjects if topics such as the following are studied:

- Personal Spending
- The Family Income and Expenditure
- Household Accounts
- Savings and Investments
- Taxation
- Shopping for the Family
- Building an Aquarium

Building a House

Banking

Hire Purchase

Pension Funds

The Finance of Poultry Keeping

The Finance of Goat Keeping

The Finance of Garden Produce

The Town Water Supply

The Town Electricity Supply

Central Heating

The Bicycle

The Internal Combustion Engine

Our Garden

Our Food

Our Bodies

Our Health

Our Camera

Why does it rain?

Why do the Winds blow?

The advantages of using the topic approach as one of our teaching methods lie in the ready-made interest which the pupil has in matters of daily life and needs. Education becomes related to the business of living. History, for instance, is not divided artificially into the reign of kings but traces through the course of time the development of important things as Government, Law or Transport. Mathematics becomes a personal and useful matter. Science is related to such everyday needs as food, heating, water and health. The topic method not only provides interest but also stimulates the pupils curiosity because he sees purpose in mastering the topic and is anxious to find out, for example, why he must breathe and eat or why the light comes on when he presses the switch. The topic method, in the eyes of the pupil, eliminates formality from the classroom subject and takes him into the exciting world beyond the school.



Students at the Amedzofe Teacher Training College in Ghana in the classroom of a Primary School taking notes on practical teaching methods

Malayan Students building an open-air theatre





Students studying banana plants at the Yundum Teacher Training College in Gambia

An Art Class in progress at a Teacher Training College in Ghana





At the Kent Teacher Training College in North Borneo students are encouraged to play their native musical instruments as part of their training

Football Practice at the Kent Teacher Training College in North Borneo





Students using the library at the Malayan Teacher Training College at Wolverhampton, England

A Malayan Student Teacher directing group work in an English Primary School



Centres of Interest

In recent years the notion of eliminating subject divisions from the Primary Schools and replacing them by planned units of work, known as centres of interest, has gained ground in many parts of the world. The centres of interest idea demands the complete integration of school subjects. Indeed the label "subject" is an anathema to the progressively minded exponents of the "centres of interest" method. The argument of the proponents of "centres of interest" is eminently sound in that integrated activities are introduced into the school, centred around focal points which appeal to the pupils' interests and needs. It is important to emphasize that, although the centres pay attention to the interests and needs of the pupils, they are selected and planned by the teachers. An additional virtue of the centres of interest method lies in the fact that it is not only "child-centred" but also "community-centred".

The centres of interest system offers "experiences" for the pupil in family and community living and the gradual enlargement of these experiences results in his growth. Creativeness, investigation and dramatization are undoubtedly fostered by this system of education.

Great care must be taken in the organization of these centres of interest and it is vital that the Principal and all members of the teaching staff collaborate in close co-ordination, otherwise wide gaps may be left in the child's education. It is moreover essential to ensure that the basic skills are not neglected. The pundits of this system of education claim that, far from being neglected these basic skills of reading, writing and arithmetic are developed to a high level of attainment because the pupils use them naturally and purposefully in their centre of interest.

At the primary level the centres of interest are usually woven into studies of the locality, i.e. the immediate environment of the pupils home and school. A local survey

is made and the pupil engages in an investigation of such important factors in his life as:

The School Garden
 The Post Office
 The Grocer's Store
 The Hospital
 The Police Station
 The Fire Station
 The Gasworks
 A Factory
 A Garage
 The History of Everyday Things
 The Town Hall
 Carpets

As with the Project System and the Topic Method, the Centres of Interest Method is motivated by a determination to engage the whole activity of the pupil in interesting and profitable fields of experience. These three methods are successful in that knowledge is considered of less importance than the growth and development of the child. In each of these methods the child is:

- (i) Active not passive.
- (ii) Obligated to think for himself.
- (iii) Caused to feel a sense of achievement.
- (iv) Following investigations which are interesting and needful to him.
- (v) Being adjusted to the life of his community.
- (vi) Enjoying himself but yet facing tasks which demand hard work and serious application.
- (vii) Working in a group and thus learning to co-operate as a responsible member of a tiny community.

Discussion Technique

"Let's have a discussion, children," says Teacher. "Now what shall we discuss?"

How absurd is this haphazard approach to Discussion work. How frustrating and how barren of practical results such an ill-prepared approach will be.

A discussion, to yield any satisfactory results, must be planned with the utmost care. In the first place we as teachers must decide whether the problem under consideration can be satisfactorily dealt with by a discussion or if it is not preferable and more simple to find the answer to the problem by straightforward teaching. If, for example, we are teaching an unequivocal rule or precept then we must allow no discussion. On the other hand there are, especially in social studies, many topics which require careful evaluation. Let us be certain then, before we plunge into a discussion, that the topic or problem is suitable for discussion.

In the second place let us be certain that the pupils have an adequate depth and width of knowledge concerning the topic under discussion, so as to enable them to debate sensibly with a sufficiency of facts as their disposal. As we have previously stated, we do not wish the pupils merely to "pool their ignorance".

In the third place are we, as teachers, clear in our minds about the definite aim of the discussion we propose to hold? There must be a reason *why* we hold a discussion. A discussion is futile if a clear cut aim is not pursued and realized. Many adult discussions that I have attended have merely succeeded in sending the members away clouded with surging and conflicting arguments, simply because the discussion was aimless. We cannot risk creating such uncertainties in the minds of our pupils.

In the fourth place we must ensure that the discussion is educational and provides an opportunity to practise good

manners and courtesy, correct speech and clear thinking. Furthermore we must not allow the discussion to be dominated by the gifted pupils but must see in the discussion an opportunity to develop those pupils who are either lacking in self confidence or are inarticulate.

Below are the suggested stages for a discussion:

- (i) Selection and planning of the discussion by the teacher and perhaps a small committee of pupils.
- (ii) Preparation by the pupils.
- (iii) Pupils must be given time to read or acquire a certain store of factual knowledge on the topic of the discussion so that they "have ammunition to fire".
- (iv) The conduct of the discussion.
 - (a) Chairman who should launch the discussion.
 - (b) Two or more principal speakers with perhaps conflicting viewpoints.
 - (c) Open forum.
 - (d) Summing up and final courtesies.

N.B. The Teacher should at first act as Chairman so as to offer examples of chairmanship.

- (v) Follow-up.

Pupils should write a summary or a report on the discussion.

Evaluation

STUDENTS must not expect to find in this chapter a guide to scientific assessment and measurement. Much has been written on this subject some of which is indeed comprehensible to ordinary teachers such as ourselves, but a great deal of which will confound us and create the impression that any form of evaluation which we attempt is entirely unreliable.

I would like to discuss certain broad principles of marking and evaluation which will enable the class teacher to adopt a sensible and effective attitude to the problem. Let us first consider the major purposes of evaluation. They are, I suggest, as follows:

- (i) To enable the pupils to understand their own problems and to realize what progress they are making.
- (ii) To measure the effectiveness of instruction within the school's programme.
- (iii) To enable the teacher to appraise the progress of his pupils and so diagnose their difficulties and find remedies for these difficulties.
- (iv) To enable the teacher to evaluate the instructional programme followed and to be self critical of his teaching techniques.

With these aims in mind let us consider two guiding principles of evaluation.

Systematic and Continuous

Whatever plan we adopt, our assessment and marking must be a matter of routine. Our plan must not be a haphazard business of "I think I'll give them a test to-day and see how they are getting along".

At some stage during each lesson there should be a verbal or written test to ensure that the lesson is being intelligently understood. An additional factor in favour of regular class tests is that it decreases a pupil's susceptibility to nerves at the more formal examinations. At least once each month the pupils should be set a written test which serves to recapitulate the month's work. At the end of every semester a more formal written test should be given on the semester's work. Similarly the year's work should be examined at the end of the school year.

The pupils' performance in these tests must not only be dutifully recorded but also discussed with him. The results of the class tests and monthly tests should be recorded by the teacher on class record cards but the results of the semester and yearly examinations should be entered and commented upon in the pupils' school record book. It is important that this record book is seen (and initialled) by the parents at least once per annum. At Parent-Teachers' Meetings the Principal should impress upon the parents that comments are made upon their children's progress and behaviour so that they, the parents, can play their part in the development of the child's potential.

Individual Progress

It is inimical to an individual child's progress if the tests given merely provide the teacher with a mean of the class's attainment. Evaluation should be related to a child's own ability and progress. As we have mentioned, when we considered the problem of questioning, it is vital that our tests engender a feeling of achievement and not one of des-

pair. Our testing should offer each pupil encouragement to attain his highest possible performance. When we mark the tests completed by the pupils we must bear in mind their individual differences. Five marks out of ten may be a splendid performance by a boy of low intelligence but such a mark may denote indolence if gained by a boy of high intelligence. In such cases we must praise or berate according to effort not to a bare marking. Our task is to discover a pupil's retardation or acceleration. Retardation is the extent to which pupils' marks may fall behind what is normal to their chronological age. Acceleration is the extent to which pupils' marks are ahead of what is normal to their chronological age. It is on the basis of the child's retardation or acceleration that we should judge his performance.

Again let us at all costs avoid a negative attitude to testing which merely has the object of discovering ignorance. Let us probe to find out what a child knows, not what he doesn't know. It is a sad fact that many teachers appear to take a delight in revealing a child's ignorance. Such an attitude will only serve to give a child a sense of defeat.

Our testing, too, must not merely assess factual knowledge. It is our prime duty to estimate the child's capacity for clear thinking and not merely his ability to memorize.

Finally, let us strive to impress upon the child that testing is not to be associated with scorn or punishment. Let us gain his trust by proving to him that testing enables the teacher to find out things that will help him to get ahead. Testing in many schools is a dead, cold hand on learning, but in schools where it is used imaginatively and constructively it can be a major stimulus to learning. A dread of making mistakes will curb a child's initiative but a feeling that mistakes will be sympathetically corrected and lead to enlightenment will cause a child to attempt a task boldly and confidently.

Text-Books and the Class Library

Text-Books

TEXT-BOOKS are frequently deplored by progressive educators who associate them with old-fashioned teaching methods. Certainly there is much to be deplored in the manner in which text-books are used by lazy or unimaginative teachers who use them as their sole method of teaching. Some such teachers are content to be merely one chapter ahead of the pupils and to do nothing to enrich, widen, deepen or relate to life the contents of the text-book. Their method consists in causing the students to digest the contents of a chapter either by oral or silent reading and then submitting the pupils to either a written or verbal test on what they have read. This plodding, pedestrian method of teaching lacks both the inspiration of an enthusiastic teacher and the interested co-operation of a lively pupil. It is not education, it is merely digestion.

The approach to text-book teaching mentioned in the preceding paragraph sets the text-book at a disadvantage because a text-book should be complementary to sound teaching and supplementary to sound learning.

There are two methods by which text-books may be used:

- Complementary and supplementary reading
- Resource books

Previously we have stressed the desirability of "hearing" being reinforced by "seeing" during the class lesson. Text-

books in this connection have great value. When the pupils have listened to the teacher's exposition they should be able to read more deeply and widely concerning the subject taught and so gain another interpretation or viewpoint.

Text-books should be used as a quarry of information or research by the pupils. Instead of teaching being followed by reading, it is a satisfactory technique of education to give the pupils assignments to carry out or problems to investigate by means of their text-books.

It is important that definite and specific tasks should be demanded from the pupils. Such instructions as "Children, I want you to read Chapter V", or "Children, I want you to read about cotton growing in Iran" are vague and pointless. The correct way is to state firmly and clearly what you wish the pupils to find out in their text-book reading. This: "Children, I want you to find out why it is possible to grow cotton in certain parts of Iran. You will find all about this in Chapter V." Text-books should not be used vaguely as readers, but as sources in which either accurate information or the solution to specific problems can be found.

From this standpoint it is essential therefore that text-books are chosen so as to parallel closely the syllabus being followed. The good text-book should complement, amplify and enrich the class teaching and not replace it. Further, as it is desirable to expose the pupils to a variety of viewpoints on and approaches to any subject, it is an added advantage to have "sets" of text-books rather than rely on a single text-book for each subject. To-day in many countries the class library with three or four "sets" of books for each subject area has proved an effective stimulant for the development of the habit of reading by the pupils. Moreover the existence of a variety of books on one subject area tends to prevent the mere memorization and "parroting" and "regurgitation" which results when the pupils slavishly follow a single text-book.

The Class Library

"The greatest benefit to learners after the master is a good library," observed the seventeenth-century schoolmaster Christopher Wase. It is not over-stating the case to lay down the principle that any programme of study in a school which is not directly related to further reading by the pupils cannot be said to have succeeded. In fact, if the whole essence of class teaching is to stimulate the inquisitive spirit, then a library must be regarded as an essential complement of sound teaching.

Accepting the principle of books as a necessity in our schools, immediately we face the question as to what sort of books and how should our supply of books be administered? As to the type of books, surely in the first place they should parallel the work of the school. Simply, our pupils should be able to read more about any subject they are taught in the school. Secondly, and just as important, there should be books which stimulate the imagination of the pupils and afford them relaxation and enjoyment. As to administration, I believe there are two important considerations. The first of these concerns the importance of every school possessing an intellectual hub, and this hub I firmly believe should be the hallowed, holy ground of the school library, a place dedicated to quiet study. The only rule I would have in my ideal school would be—*silence* in the school library, where, I insist, the atmosphere should be one of complete tranquillity; almost, I consider, monkish. The library is a place to read and think about what you are reading, and this is impossible if there is the bustle and noise of people. The second consideration is that books should be readily available the moment they are needed and that, for a few minutes every day, pupils should be able to take out a book and begin reading without having to tramp round the corridors to the library. This brings us to the class library.

The class library should initiate the pupil's love of

reading and prepare him to take advantage of the facilities of the school, and later, the municipal, library. A taste for unprescribed reading can be developed quite informally by a bookcase in the classroom full of books which are attuned to the age, aptitude and class work of the pupils. Formal rows of books in a large library present a somewhat awesome appearance to a nine-year-old boy or girl, but a few cheerful readers, story-books and bright children's reference books arouse no such sentiments if he or she can find them in a corner of his own classroom. Moreover, if these books are known to be the "personal" property of his or her class, then they amount to nothing more than interesting objects by means of which happy hours can be spent either by reading about exciting adventures or discovering things a nine-year-old wants to know all about.

It is suggested that the dual purpose of a library, mentioned earlier, should be our guiding principle in forming our class library. We need books which are complementary—though not noticeable so to the pupils—to the subject-matter of all we teach; say, three or four books as background material to each of the subjects. In this section, of course, we need two or three dictionaries and a similar number of simplified encyclopaedias. Secondly, we need a selection of story-books and hobbies books appropriate to the class's intellectual stature and experience. This group of books should definitely be for fun. Do not fall into the old trap of believing that unless the child is slogging away at some text-book or reference book he is necessarily wasting his time. The first coral island I visited in the beautiful Perhentian Isles, lying in a sapphire sea off the coast of North-east Malaya, was familiar ground to me. I had never studied coral islands in my geography lessons, but I had read *Coral Island* at the age of ten. By stimulating a joy in reading, you are perhaps making your greatest contribution to your pupil's future happiness. For the man who loves

books is never utterly lonely nor wholly wretched. He is, moreover, rarely a fool.

The class library offers infinite scope for "topic" study and "Daltonian" work on a limited scale. The teacher is able to set group or individual assignments with the knowledge that the necessary information is available in the class library. Moreover, unlike study in the school library, the teacher is available for instant consultation and guidance. Once a pupil achieves the realization that his class library can inform him on useful matters related to his own problems, he will regard books with the respect they deserve. Once he can lose himself in high adventure and find outlets for his emotional disturbances or learn just how his elder brother's motorcycle works, then he will begin to look upon books as a necessity in life.

The class library conveniently divides itself, if we follow our dual principle, into a reference library and a lending library. A total of fifty books, consisting, we suggest, of story-books and hobbies books, circulating in a class of forty, provides a reasonable amount of reading at the rate of one book per week. The librarianship should be in the hands of the pupils. The library should be under a class library committee which appoints two librarians for a period of a month, one of whom is responsible for the reference side and the other for the lending branch. Suggestions for books should be put forward by the committee, with the teacher in an advisory capacity. The committee should be responsible for the rules governing the issue of books and for upkeep of the books in the library. In this connection we perceive obvious scope for integrating book-binding and art with our English studies. Handwork, too, can be effectively introduced by the production of shelves or bookcases.

Several teachers I have met have conducted excellent class libraries by allocating the last hour of the week to library

work, gumming loose pages into the books, re-backing them and, of course, a short time during this period for changing library books. If time is still available during this period, teachers discuss with their pupils the merits and demerits of the books in the library.

The essence of an effectively conducted class library is that it belongs to the class and is wholly organized by the class. The purchase of fifty or sixty classics and the placing of these books in a bookcase, the key of which remains on teacher's key-ring, will never result in a class library. The children will adhere to a firm belief that this is just more school work, especially if teacher maintains an iron hand on the distribution of these books. If, on the other hand, the children have a say in the selection of the books, if they feel that the books are their property, if the library is organized by themselves for themselves, then they will delight in thumbing through the books of the class library, and will have set out on the most enthralling pastime in the world.

Remember:

The class library should belong to the class.

There should be two categories of books in the class library—those which you wish the pupils to read and which are complementary to your class teaching and, secondly, those which they themselves wish to read and have chosen.

The organization and librarianship must be in the hands of the pupils.

◦ Ensure that the pupils have a library hour at least once a week.

Discuss books and authors with your pupils regularly.

An important psychological factor is to allow one of the pupils to hold the key if your bookcases are not open-shelved.

Physical Education and Health Education

Physical Education

It is widely accepted that every teacher should be a teacher of the mother tongue and to this I would add that every teacher should be a teacher of Physical Education. Physical Education to-day is not merely a series of exercises through which the child's body is developed but a medium which secures a social, emotional and recreative development of the child. In fact physical activities should permeate all the subject areas of the curriculum. As an area of activity Physical Education performs three outstanding functions all related to the aims of education we have discussed.

They are:

- Social, Moral and Emotional Education
- Physical Development
- Recreational Education

Social, Moral and Emotional Education

This is undoubtedly the prime motive for Physical Education in our school curriculum. Physical Education and games must be carried out by groups and teams of children and this playing and working together offers abundant opportunities to develop such characteristics as endurance, co-operation (team work), self-discipline, leadership, fair-play and sportsmanship.

Hard games enable the pupils to master their temper, control their emotions and develop good manners.

Games and rhythmical dancing promote sociability and pleasant, wholesome conversation and easy social deportment.

Physical Development

Physical Education was originally solely devoted to this purpose of developing physical growth through muscular activity. This is still of great importance.

Physical Education can develop the co-ordination of brain, eye and limbs and, in general, secure for the child motor control which offsets ungainliness and clumsiness and thus makes a "psychological" contribution to the development of a well-balanced personality. In short an adjustment can be achieved through Physical Education between the physical growth of the child on the one hand, and his mental and emotional growth on the other.

Physical activities can develop moral fibre, endurance and courage in the child.

Recreational Education

Physical activities, especially games and dancing, afford the child with worthwhile recreational pursuits which will develop interests for his leisure.

In this respect it is essential that the teacher invests his Physical Education period with "fun and games". Our motto should be "This is not only going to do you good, but it is also going to provide you with fun and amusement."

° Physical Education should not be looked upon as a treadmill but as an educative frolic.

The Physical Education Programme

There are in existence many sensible schemes of Physical Education, together with Tables of Exercises, Activities,

Games and Dances, and so there is no need to list these tables in this guide. Broadly, the programme should consist of three principle activities.

1. *Directed activity*

This consists of developing physical skills such as walking correctly, posture exercises, strengthening exercises, running, leaping, climbing, catching, vaulting, swinging, throwing, striking and balancing.

2. *Games*

Games should be approached through the practice of individual skills, followed by introductory group practices. The pupils should then be taught the game, and practice playing. If the game is not preceded by introductory individual and group practices of the skills involved, many pupils will find the game frustrating and the true form and value of the game may well be lost.

It is vital that games are fitted to physical and mental growth of the child. To give an example, boys at the lower primary level should not be introduced to such games as Rugby Football, but should be introduced by preparatory activities as "dribbling" a soccer ball or passing a rugby ball. Rounders for example, should precede cricket or baseball.

It should be a source of pride to all young teachers that they are capable of organizing coaching and refereeing at least one school game.

3. *Rhythmic dancing*

Song and Play should form the basis of Rhythmic Dancing. The attitude of many teachers to Rhythmic Dancing is one which places more emphasis on a highly skilled performance than on the fun of the activity.

It is important to keep these dances uncomplicated, and well within the child's powers of balance and dexterity. At all costs as teachers we must avoid a temptation to concentrate on an expert group which may well encourage

exhibitionism amongst the members of such an expert group.

Let us remember that although we wish the pupils to dance well, our principle concern is the development of grace and poise and the correlation of good music, good poetry and folk lore with controlled movement.

Health Education

Health habits must be developed in our pupils from the moment they enter the primary schools. So much importance is attached to the promotion of satisfactory hygienic behaviour and health habits that most primary schools of the world devote the first twenty minutes of the daily programme to practising and discussing certain routine health habits. Needless to say these habits are best acquired through regular practice. The children must live healthily and not merely be taught the theory of sound health.

The theory of Health Education should be related to other subjects of the curriculum as for example Physical Education, Science, Domestic Science and Social Science. However, at the primary level, teachers should possess an adequate knowledge to understand and teach the following:

The Functions and Care of the Body

Posture

Care of Eyes, Ears, Teeth and Hair

Elimination

Cleanliness

Personal Hygiene

Personal Appearance and Suitable Clothes

Elementary Sanitation and Ventilation

Nutrition—Food Values

Sleep, Rest and Exercise

Safety Rules—Home, School, Traffic

Co-operation with School Health Service
Community Health Services

Observation of Children

A teacher must not attempt to act as a medical doctor but he should be constantly on the alert to note symptoms of ill-health, both physical and mental, revealed by the behaviour of individual pupils.

These manifestations should be reported so that medical examinations can be arranged. Here are a few points to be watched by class teachers.

Nail Biting
Thumb Sucking
Scratching
Excessive Shuffling
Persistent Toothache
Persistent Headaches
Persistent Earache
Persistent Coughing
Persistent Nose Running
Persistent Nose Bleeding
Sore Throats
Acne (Pimples)
Shortness of Breath
Tiredness and lack of Energy
Excitability
Vision
Hearing
Shyness or Aggressiveness
Outbursts of Anger
Dizziness
Fainting Spells
Frequent Urination or Elimination
Abdominal Pains

Speech Difficulties

Signs of Obesity

Signs of Under-Nourishment

Early reports by the teacher on the symptoms listed above will avert serious illness and physical handicap. Prevention is better than cure and prevention stems from careful observation.

Conclusion

IN the foregoing chapters we have discussed how the aims of education can be achieved first by a sensibly planned curriculum in our schools and, second, by ensuring that this curriculum provides the pupil with a wide range of interesting and purposeful activities, experiences and subject areas by means of which his reasoning powers, his whole personality, potential talents and adjustability to society can be satisfactorily developed. Certain methods and techniques of teaching have been put forward which are known to have achieved a reasonable degree of success in attaining these goals with children in many countries of the world. It is hoped that these suggestions will not be accepted as *immutable canons*. Education must be dynamic in order to prepare our pupils for a dynamic world. The effective teacher is one who keeps his ear to the ground and detects change in the circumstances, the conditions and the impermanent pattern of life. The effective teacher should be "bang-up-to-date" with the world and should not present the picture of the much derided, fusty, old academician so often depicted in novels and plays. As teachers we must regularly submit our teaching methods and our subject matter to a searching re-appraisal and seek fresh approaches.

I remember many years ago my Tutor during my teaching practice, in response to my hopeful query as to whether he liked the method I had just employed in a history lesson, said, "I personally didn't care for the method much, but then *it worked*, didn't it? And that's what matters in teaching." Now the advice given to me a quarter of a century ago is, I believe, the soundest I can offer to teachers

CONCLUSION

young or old. By all means be guided by tried and tested principles of teaching but remember, in the end, that you must find for yourself methods of teaching which "work" with the pupils in your class or grade. "Workability" should be the criterion when you evaluate your own teaching.

Let us never forget that, with all our techniques, methods, stunts and visual and aural aids, in the end it is the impact of the mind of the teacher on the mind of the pupil that ignites the symbolic torch of education. Let us be certain, therefore, that as teachers our minds are minds of quality, erudition and virtue. If we see to it that the flame of curiosity burns ever brightly in our own minds then there can be a reasonable expectancy that this fire will spread to the minds of our pupils.



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A TEACHER TRAINING MANUAL

James Dunstall, D.Sc., D.A.

This manual has been devised to meet the needs of emergency conditions where, because of rapid developments, there may be a shortage of time and need for Teacher Training Colleges.

The manual gives the basic principles underlying teaching methods and deals concisely with psychology, child growth and development so as to enable the practitioner of the education, by themselves, the method of teaching with emphasis on activity method and the project system. The author has had wide experience of training teachers in many countries of the Far East, Near East and in Europe.

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